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EDITORIAL.

PRESIDENT McKINLEY.

While bowing in humble submission to the will of the Great Ruler of the Destinies of Nations, we acknowledge our utter helplessness to fathom the inscrutableness of the divine wisdom in His removal of the beloved President of the United States—that man among men, that God-fearing, sagacious, upright leader of a great people, who had accomplished so much for the cause of the Creator and his fellowman. Prostrated by this additional evidence of His wonderful wisdom, we can only exclaim: "Thy will be done."

EUROPEAN CHRONICLES.

KOCH AND NOCARD.—Everybody is out of town. Societies, medical or veterinary, have suspended their work; meetings are adjourned, and until October, when having recuperated strength by rest in the country or on the seashore, in the mountains or at the watering places, the scientific world will once more set to work, little news can be looked for in our "Chronicles," and on that account this installment will be short.

It is not, however, that nothing more can be said of past events, and certainly subjects which we have already alluded to are not without offering room for further consideration. For instance, I was just looking into the *Suisse Medicale*, and my attention was attracted to the late English congress by the title of

an article: "British Congress of Tuberculosis for the *Preservation of Phthisis.*"

Is it sardonic enough?

And, yet, is it not correct? Prof. Koch has no doubt made the most sensational among the numerous important communications that were presented to the Section on Bacteriology.

In the article that I refer to I find the answer of Prof. Nocard, who opens his refutation by a most flattering compliment, a salute to the *greatest bacteriologist of the whole world.* Prof. Nocard is in reality too modest, and his opening remarks when he alludes to the sympathy expressed by Koch towards the French scientific mission (Roux, Strauss, Nocard and Thuillier), which in 1883 was sent into Egypt to study the prevailing epidemy of cholera, and when Thuillier died from the scourge in 48 hours, were certainly worthy of the great new struggle which is going to be inaugurated.

Koch's communication charms and satisfies Nocard, but again it frightens him, and seems to him full of dangers.

What Nocard likes in the communication is that it justifies the efforts of those who at first protested against exaggeration of the prophylactic measures. Truly a wise reaction has taken place since a few years. The communication of Koch will increase it; will it not exaggerate it? "I am in fear, that after having resorted to excessive and absurd measures against imaginary dangers, we will not protect ourselves any more against the real dangers that bovine tuberculosis threatens public health with." Nocard, we all know, has always said that dangers from bovine tuberculosis were small, but small as they are, they exist, nevertheless, and it would be a serious mistake to ignore them.

From his experiments, Koch concludes that bovines are refractory to human tuberculosis, that man has nothing to fear from bovine tuberculosis, that it is useless to guard against it.

But the principle of experimental method says that negative facts, no matter how numerous, do not upset positives, and those are numerous.

Among the first who brought the value of their experiments in that same direction stands Chauveau, who took all the necessary precaution as to condition of health, of age, etc., and the results were positive, and prove that human tuberculosis may be communicated with difficulty, but it can, nevertheless.

How to explain such different results, obtained by two great masters, is difficult, perhaps.

But: "It is a well-known general law that the gradual adaptation of any parasite, in a media, inert or living, where it succeeds in developing, confers to him the aptitude to develop more easily in medias similar to the former.

"This is true for the bacillus of tuberculosis as for all other microbes.

"Every one knows how difficult it is to obtain a first culture of the bacillus of Koch on the most favorable medias.

"What is true of inert medias is still *à fortiori* more true of the living ones.

"Every one knows that the bacillus of rouget of swine grows with difficulty the first time in the rabbit's organism; to kill a rabbit surely, three or four must be inoculated, and death takes place only after four or five days, perhaps later; but if the microbe is made to pass from one rabbit to another its virulency becomes such that it will kill in a few hours; and this bacillus, then, so virulent for the rabbit, has lost all its virulency for the pig, whence it comes; it can be inoculated to pigs in large doses without killing him or even making him sick."

Nocard has besides shown how the bacillus of tuberculosis of man or of cattle, cultivated in the peritoneum of chickens, protected from phagocytary action by the use of collodion bags, would slowly acquire, little by little, the characters of the bacillus of aviary tuberculosis and become unable to kill guinea-pigs, or kill them only with lesions analogous to those of aviary tuberculosis.

"All those facts make me think that the results obtained by Prof. Koch proceed from causes of the same order," says Nocard.

"Bovines take tuberculosis from man seldom; but if, by any cause, the resistance of the cells is modified, reduced or suppressed, the human bacillus will be able to grow, proliferate and invade the organs of the subject whose resistance has been destroyed; and then the bacillus, adapted to this new media, will be able to develop in other healthy bovines, which would have proved refractory to the action of the same bacillus taken directly from man."

But, anyhow, in admitting that bovines are really refractory to human tuberculosis, would that give the right to conclude that the reverse is also true? "No," says Nocard, "a hundred times no; it would be contrary to all the principles of experimental methods, contrary especially to existing facts."

How many veterinarians have been victims of it by wounds received at post-mortems. Some have recovered, like Prof. Jensen of Copenhagen; others, less fortunate, have died, such as Moses of Weimar, Thomas Walley of Edinburgh.

And the numerous and authentic facts of infection from the milk of cows with tuberculous mammitis, among which is, as most known and certain, that of one of the daughters of Prof. Gosse of Geneva.

Finally, the works of the great English hygienist, Thorne, who proved by evidence the reality and severity of the danger. While for 50 years the death rate in England by tuberculosis has diminished 45 per cent., that of abdominal tuberculosis of children has increased 37 per cent.

The general improvement in lodgings, working shops, hygiene, etc., explains the first. As nothing has been done against the dangers of infection by the digestive tracts, the second is also explained.

Prof. Nocard closes his remarks by saying: "I will keep loudly repeating to-morrow what I said yesterday: Mothers, don't give milk to your children unless it has been thoroughly boiled."

No matter what variety of facts future experiments may develop, the last cry of Prof. Nocard to the Congress of London

will no doubt remain the one that wise and loving mothers all over the world will always remember to protect their little ones. A. L.

THE ASSOCIATIONS.

As promised last month, the REVIEW presents in this issue full and, as it believes, accurate accounts of the great National and State gatherings of veterinarians which occurred during the first half of September. At the same time, we very sincerely regret that the important meeting of the Pennsylvania State Association, which convened at Pittsburg on the 17th ult., is not among the number included in our reports, which is owing to no fault of this journal, since we have on very many occasions endeavored to have the secretaries of all the Pennsylvania associations transmit reports of their deliberations for publication. We feel that we owe this explanation to our large list of subscribers in that State, who have expressed surprise that, while the REVIEW regularly prints the proceedings of every association in the country, it so infrequently contains those of their own State. It is to be deplored that our readers are debarred from profiting by the very earnest work done by the progressive veterinarians of the Keystone State, with its three well-attended associations, and we again place our pages at their disposal, to be used as freely as they may wish.

Taking the fall meetings of 1901 as a whole, they were the best in every sense ever held in this country, attracting larger numbers, with keener interest in all that transpired, whether in the assembly hall or the clinic-room, with admirable fellowship and the most pleasant social features. All of which augurs well for the future of the profession and of the associations.

JOHN F. WINCHESTER, D. V. S.

Elsewhere in this number will be found an excellent reproduction of the pleasing face and noble bust of this gallant son of Massachusetts, who was, last month, exalted to the position of President of the American Veterinary Medical Association,

the highest honor in the gift of the profession of the Western Hemisphere, and we are risking nothing when we say that the ermine has never fallen upon worthier shoulders. Dr. Winchester has been one of the strong supports of the Association almost since his eligibility, and in the days when the great structure was being erected, before there were so many robust pillars to divide the burden of holding up the framework, his shoulders always bore a large share of the weight, which was sometimes so great as to threaten collapse. Now, when the edifice has been so far completed as to be in position to resist all the elements, it has done honor to itself by thus honoring one of its truest dependents. We congratulate both, and feel assured that when he turns the gavel over to other hands the Association will be stronger for having had Winchester as its head.

ORIGINAL ARTICLES.

PRELIMINARY OBSERVATIONS ON SKIN DISINFECTION AND WOUND INFECTION.*

By Veranus A. Moore, Ithaca, N. Y.

It has been my privilege during the last few years to study somewhat closely, and to have certain investigations made concerning the bacteria of the skin, the efficiency of certain disinfectants, and the bacterial contents of various wound infections, more especially in the horse. While our work in these lines is but fairly begun, the results already obtained seem to warrant a discussion of the preliminary findings, in so far as they bear upon antiseptic and aseptic methods. In carrying on these investigations,I wish to acknowledge the aid received from Doctors R. J. Standclift, C. W. Gay and C. E. Shaw, who as students in advanced bacteriology have rendered valuable assistance in this work. I desire also to express my indebtedness to Dr. W. L.

*A Paper read before the 38th Annual Meeting of the American Veterinary Medical Association at Atlantic City, N. J., Sept. 4, 1901.

Williams for his hearty coöperation and for furnishing material from his surgical clinic.

In the first application of bacteriology to comparative medicine, it was natural that investigations should have been made respecting the etiology of the more serious epizoötic diseases. However, the significance of bacteria in wound infection claimed early attention in human surgery, and it is along the line of asepsis that the teachings of bacteriology are, at the present time, accomplishing, perhaps, the greatest amount of good. In veterinary surgery, however, antisepsis and asepsis seem to have received less attention than they rightfully demand. The fact is recognized that the domesticated animals are, as a class, less susceptible to invading micro-organisms than man and consequently the cause for the quite prevalent assertion among practitioners that in the lower animals there is little or no need for antiseptic precautions. Nevertheless, the not uncommon infections with serious loss warrant an inquiry into the entire subject of skin disinfection as applied to these animals.

My attention was first called to the desirability of a better knowledge of the bacteria of the skin and the efficiency of some commonly used disinfectants in studying the cause of certain lesions following surgical operations where the prescribed disinfecting methods were carefully followed. An inquiry into the source of the bacterial findings in chronic lesions more distant from the seat of skin laceration or injury, but which seemed to be traceable to them, suggested still further the importance of this knowledge. The more interesting of these chronic disorders of a local nature, were those commonly known as scirrhous cord or botryomycosis, omphlalophlibitis, infectious cellulitis in cattle, the commonly so-called "foot rot" of sheep and other though similar abnormal conditions. In taking all of these disorders into the list of wound infections, it is necessary to include as wounds, all lacerations, incisions, and punctures of the skin, whether of sufficient size to be detected or not. It will be seen that it does not always seem to be necessary to have even a puncture, as blows or intense straining of the integument may

be sufficient to liberate into the living tissnes bacteria deeply seated in the ducts of glands and possibly the hair follicles of the skin. The problem before us, then, resolves itself into three quite distinct parts, namely :

1. The determination of the bacterial flora of the skin.

2. The finding of the degree of efficiency of different disinfectants when applied to the integument.

3. The finding of the species of bacteria which produce the more chronic disorders here included in wound infection.

In starting with the existing methods of preparing the field for operation, we find practically the same procedure recommended in veterinary as in human surgery. It is desirable, therefore, to compare the structure of, and the bacteria of the skin of man and of the horse in order to determine whether or not the method prescribed for the first is equally suited to the second. If we follow the results of the every-day operations there seems to be more frequently in veterinary than in human surgery either acute wound infection or more chronic and possibly metastatic lesions of a more or less serious nature. The question whether this is due to the operator, or, bacteriologically speaking, ill considered methods, is waiting for an answer. It is also true that veterinary surgeons who follow the prescribed course very largely avoid these otherwise common sequences, but it is for the prevention of the occasional failure that the best methods are striving.

In comparing the structure of the skin, we will at this time mention but two features which suggest greater difficulty in preparing the operative field in the horse than in man, namely, (1) the presence of a thicker layer of dead epithelium, and (2) longer and deeper seated glands and hair follicles.

Investigations concerning the bacteria of the human skin have been carefully made by a number of workers, among whom may be mentioned Bizzozero*, Mittman†, Unna‡, Fürbringer§,

* Virchow's Archiv. Bd. 98.

† *Ibid.* Bd. 113.

‡ Monatshefte für praktische Dermatologie 1889-1890-1891

§ Disinfection d. Hände d. Arzter Wiesbaden, 1888.

Preindlsberger *, Robb and Ghriskey †, and Welch ‡. The researches of Robb and Ghriskey and Welch § have shown that in addition to the varying bacterial flora of the epidermis there is in the deeper layers of the skin, within the ducts of glands and possibly along the hair shafts, a micrococcus, belonging to the staphylococcus group, which seems to be a quite constant inhabitant of the integument. It frequently appeared in surgical wounds, and while it seemed to be possessed of little pathogenesis it was often the apparent etiological factor in stitch abscesses. A very extensive series of examinations is being made by Dr. W. G. McDonald of Albany. His preliminary reference‖ to this work shows that it is not always easy to obtain in the human subject a perfectly sterile field for operation.

In the horse we find very similar conditions. The bacterial flora of the untreated skin is very rich in both numbers and species. Like the human subject it is exceedingly variable in different individuals, and on different surface areas of the same individual. Technically, however, the bacteria resting simply on the surface of the body where they have been brought and lodged by various agencies cannot be considered as belonging to the flora of the skin. This term should include only the bacteria that are the inhabitants of the deeper layers of the epidermis, the ducts of glands and along the hair shafts and follicles. In the horse, this flora consists of a number of genera, but micrococci and streptococci seem to predominate, although bacilli are often present. B. subtilis is very commonly encountered and a source of much trouble in isolating the bacteria of the skin, owing to its rapid and spreading growth on the surface of plate-cultures. Among the numerous bacteria which have been found in the skin of the horse, our attention has been given almost entirely to three species which are of interest from the wound infection point of view. These are :

* Zur Kenntniss der Bacterien des Unternagelraumer U. S. W. Wein 1891.

† Johns Hopkins Hospital Bulletin, Apr. 1892.

‡ Transactions of Congress of American Physicians and Surgeons, Vol. II, 1891.

§ Transactions of the Medical Society of the State of New York. 1900. p. 46.

1. A streptococcus which I have been unable to differentiate from a streptococcus often found as the apparent cause of peritonitis following castration, and in septic pneumonia following other operations.

2. A micrococcus which grows in clumps and forms almost milk white colonies on agar plates. This organism has frequently been isolated from cases of fistulous withers. It was not pathogenic for the experimental animals. This micrococcus is very similar to the one isolated from the human skin by Robb and Ghriskey.

3. *Micrococcus pyogenes aureus.*—This differs very little from the one described from man. It has frequently been found in closed abscesses (botryomycosis?) apparently as the exciting cause.

It was suggested from our earlier investigations that these three species of skin bacteria were the essential ones* against which skin disinfectants should be more especially directed. Their almost constant appearance in a considerable variety of lesions of a probable wound infection origin gave strength to such a conclusion. Accordingly, our inquiries were continued in a series of examinations made with different disinfectants for the purpose of finding if possible the most efficient agents for this purpose. Here, again, our results are but partial, as a number of substances reported as reliable skin disinfectants have as yet not been tried.

The method followed was to make bacteriological examinations of the skin of horses, either those to be operated upon or to be used for dissection. In all, ten cases may be included, in which nine disinfectant solutions were employed on as many different areas, with one untreated area as a check. In preparing the field for operation the hair was clipped, the skin scrubbed with soap and water, closely shaven and washed again with sterile water, after which the disinfecting solution was applied and allowed to act for from eight to ten minutes. Pieces

* The bacilli of tetanus, malignant œdema, and anthrax are not considered here in this connection.

of the treated skin were then removed with sterile instruments and placed in tubes of bouillon and liquid agar, from which plate cultures were made. The pieces of skin taken were about one centimeter square. The disinfectants used, together with the results of the examinations, are given in the appended table.

TABLE SHOWING THE RESULTS OF DISINFECTANTS AS INDICATED BY THE NUMBER OF COLONIES WHICH DEVELOPED ON AGAR PLATES MADE FROM PIECES OF SKIN FROM AREAS TREATED WITH THE DIFFERENT DISINFECTANTS:

DISINFECTANTS.	Number of cases that gave sterile plates.	Number of cases with few (5 to 30) colonies.	Number of cases where colonies were numerous or very many.	Total.
5 per cent. carbolic acid . .	2	3	5	10
3 per cent. permanganate of potassium	0	1	9	10
3 per cent. lysol	0	1	9	10
33 per cent. Sanitas	0	4	6	10
2½ per cent. chloro-naptholeum	0	2	8	10
1-1000 per cent. bichloride of mercury, aq. sol	0	1	9	10
1-500 per cent. bichloride of mercury, aq. sol	0	1	9	10
1-1000 per cent. bichloride of mercury, alc. sol.	1	1	8	10
1-500 per cent. bichloride of mercury, alc. sol.	2	0	8	10
Check	0	0	10	10

A study of the cultures showed the interesting fact that 80 per cent. of those made from the fields treated with 5 per cent. carbolic acid and alcoholic solutions of corrosive sublimate did not contain micrococci and streptococci. The bacilli were not appreciably affected. With the other disinfectants used there was no apparent destruction of the micrococci and streptococci. It is of interest to add that of the seven species

isolated from the plates two bacilli were capable of and did produce suppurating lesions when injected subcutaneously in the horse.

Without entering into wearisome details, the results of our work on the disinfection of the skin of the horse indicates that the five per cent. solution of carbolic acid and the alcoholic solutions of corrosive sublimate are the disinfectants tested which have a sufficiently penetrating power to destroy in most cases the pyogenic bacteria in the deeper layers of the skin. Several solutions used more or less commonly as skin disinfectors do not seem, in the strengths employed, to be of value in this connection. It is presumed, but not determined, that most if not all of these solutions are fatal to the bacteria which come in contact with them. It is very likely that it will be very difficult, if not impossible, to find solutions that will in all cases sterilize the field for operation.

It is instructive to note the close resemblance between the bacteria of the deeper layers of the skin and those found in the lesions in such affections as septic peritonitis, scirrhous cord, or botryomycosis, closed subcutaneous abscesses, infectious cellulitis, and many other nonspecific infections. The bacterial findings* in fistulous withers and poll-evil show a similar relationship to the pyogenic bacteria of the integument. The hypothesis is suggested by present results that possibly these troublesome lesions are the result of the setting free in the living tissues, possibly from injuries of many kinds, certain of the bacteria deeply seated in the integument. However, the results of many observations will be necessary before positive conclusions are warranted. With the other lesions mentioned, the possible relation of their cause to the bacteria of the skin is more clearly indicated. The infection from the hands of the operator, or from unsterilized instruments is, of course, a very large factor in

* Moore. AMERICAN VETERINARY REVIEW, Jan.–March, 1900.

Gay. *Ibid.*, March, 1901, p. 877.

Gay found streptococci associated with either the white or yellow micrococcus (both in two instances) in nine cases of fistulous withers and poll-evil.

wound infection in careless or unscientific work, but in modern surgery such accidents should, at the most, be exceedingly rare. In a few cases which I have examined the infective lesions have followed operations where the usual method of disinfecting the skin was observed, the hands of the operator cleansed and washed in bichloride, and the instruments boiled just prior to their use. While this does not exclude external infection, it suggests either errors in methods, or the presence of the infecting micro-organisms in the skin of the patient, from whence they were carried into the wound.

The selective power on the part of the horse, or better, perhaps, that only a certain few species of bacteria which may gain entrance to the fresh living tissues can survive, seems to be well established. This power, if you please so to put it, is well illustrated in case of navel-ill, where the infection unquestionably comes from without and where many species of bacteria are brought into competition. I will describe briefly one of the cases which I have examined to exemplify the point in question.

A colt, about three weeks old. It was in good condition and seemed to be perfectly well excepting for the diseased joints. Killed for examination. The umbilical vein, from the umbilicus to the liver, was distended with blood, pus cells and bacteria. All of the internal organs appeared to be normal. In both knee joints and one hock joint there was extensive suppuration. A bacteriological examination showed the umbilical vein to contain many species of bacteria, among which may be mentioned *B. coli communis*, *Micrococcus pyogenes aureus* and a streptococcus. One of several tubes of media inoculated from the liver developed the streptococcus, the others remained clean. All media inoculated from the heart blood, spleen, kidneys and glands remained sterile. All of the media inoculated with the pus from the joints gave pure cultures of the streptococcus.

The cases of navel-ill which I have seen in lambs were due to an infection with a bacillus belonging to the colon group. The lesions were subcutaneous and intermuscular suppurative cellulitis.

The lesions known as botryomycosis are from the etiological standpoint the most interesting of those here included in wound infections. The cases which form the basis for these

remarks were diagnosed clinically by Dr. W. L. Williams, who kindly sent them to me for a bacteriological examination. They include the forms known as scirrhous cord and closed abscesses from different parts of the body. There is a difference of opinion concerning the etiology of these lesions. Bollinger, Rivolta, Rabe, and Johne have found in them a peculiar species of micro-organism, which has been given a variety of names, but generally designated in more recent publications as *Micrococcus ascoformans*. These authors look upon botryomycosis, in consequence of this supposed single causative agent, as a specific disease. A number of works on comparative surgery and pathology treat it as such. On the other hand, Kitt, Hell and de Jong have failed to find this organism, but in its stead they isolated *Micrococcus pyogenes aureus*. The extent to which other bacteria or fungi are involved in these lesions does not seem to be clear. Gay (l. c.) found a streptococcus associated with a micrococcus in four cases. In two cases the cultures were sterile.

In my study of these lesions, I sought diligently for the supposed specific *M. ascoformans* in cover-glass preparations, in many and varied cultures, and in sections of the thickened cord and walls of the closed abscesses, but invariably with negative results. During the last two years I have thus examined six cases reported by the surgeon in charge to be characteristic botryomycosis. Four of these were in the spermatic cord and two were closed abscesses located elsewhere on the body. From three of these, the two abscesses and one cord, I obtained pure cultures of *M. pyogenes aureus*. All of the media inoculated from the other three cases remained sterile. These were of long standing.

The micrococcus obtained from one of the abscesses was very virulent both for rabbits and horses. In the inoculated horses extensive suppurative lesions developed in four days. The rabbits died of septicæmia within thirty-six hours.

In another case of recent origin, following castration, pure cultures of a streptococcus were obtained from the inflamed cord. This, however, cannot be considered as the cause of

scirrhous cord, as the lesion was too recent and acute to indicate what the final outcome might have been.

In one of the scirrhous cords of long standing and from which the bacteriological search gave negative results, the firm fibrous tissue of the much thickened cord contained numerous pockets filled with a soft spongy tissue in which were embedded minute masses of growth resembling the ray fungus of actinomycosis. Sections of this tissue were sent to several pathologists for opinions, and without exception they pronounced the masses of a fungus nature and most probably that of actinomycosis. This is suggestive in the light of Jensen's observations and also the good results reported in its specific treatment with iodide of potash as advocated by Thomassen and others.

Finally, the conclusion seems to be warranted, at least for a working hypothesis, that botryomycosis is not a specific diseased condition, but that it is the result of infection with any one of several micro-organisms, among which *M. pyogenes aureus* seems to be the most common. With these somewhat general and simple statements, which are offered here for discussion, the subject must rest until the results of additional and more extended investigations can be recorded.

THE SCHMIDT TREATMENT FOR PARTURIENT PARALYSIS.

By John J. Repp, V.M.D., Veterinarian to the Experiment Station, Ames, Ia.

For the purpose of assisting in the introduction of the Schmidt treatment for parturient paralysis into Iowa, and of determining what the results of this treatment would be in the hands of the veterinarians of this country, in September, 1899, I addressed a circular letter to each of the 150 graduate veterinarians in Iowa requesting their coöperation in the work of this research by applying the treatment in their practice and reporting their results to me. Ninety of these replied, signifying their willingness to use the treatment. I should say that a few

of these had already put the treatment into use in their practice. These, however, agreed to report their subsequent results to me. Accordingly a circular of instructions, an infusion apparatus, two ounces of potassium iodide, and ten special blanks for report of cases treated were forwarded to each veterinarian who had consented to coöperate. In November, 1900, a letter was issued to each of these veterinarians requesting that the reports they had collected be sent in. Up to this time I have received replies from thirty-three veterinarians. In all, 166 cases were reported; of these 166, 119 resulted in recovery, while 47 were fatal. Of the fatal cases in eight of the cows death may be traced to some complication such as prolapse of the uterus, foreign-body, pneumonia, etc. In these cases the Schmidt treatment cannot be said to have failed, for it is not in any way intended that it shall be able to overcome such accidental conditions. If the cow has recovered from her condition of paralysis as a result of the Schmidt treatment far enough to be out of danger from that source and to promise recovery, but later falls victim to some complication that is in no measure a part of parturient paralysis, but only a result of that disease, it may with justice be said that the Schmidt treatment was a success so far as the malady against which it was directed is concerned. Looking at the reports from this generous point of view, in 127 cases out of 166, or 76.5 per cent., the Schmidt treatment was successful so far as the parturient paralysis was concerned.

I regret that the limit of this article forbids the presentation of a full report of each case, and that it must be confined to the following tabulated report, which gives a summary of the important features of these reports.

1. Breed—

Shorthorn	*31	Galloway	1
Jersey	17	Polled Angus	1
Holstein	4	Devon	1
Hereford	3	Grade	42
Not stated	66		

*NOTE—The figures represent the number of cases.

2. Age—
   - Four years 2
   - Five years 8
   - Six years 19
   - Seven years 24
   - Eight years 26
   - Nine years 10
   - Ten years 8
   - Twelve years 5
   - Thirteen years 1
   - Not stated 63

3. Condition—
   - Fat 33
   - Fair 57
   - Thin 2
   - Not stated 74

4. Quantity of milk given—
   - Very large 41
   - Large 24
   - Small 6
   - Not stated 95

5. Care and feeding before parturition—
   - Fed lightly 3
   - Stabled, fed liberally. . . . 14
   - Pasture only 52
   - Pasture, other feed 19
   - Not stated 78

6. Had parturient paralysis before—
   - Once 4
   - Twice 2

7. Character of parturition—
   - Normal 80
   - Difficult 3
   - Not stated 83

8. Number of calves borne by each cow—
   - One calf 1
   - Two calves 2
   - Three calves. 13
   - Four calves 19
   - Five calves 19
   - Six calves 14
   - Seven calves 9
   - Eight calves 2
   - Nine calves 1
   - Not stated 88

9. Afterbirth retained—8

10. Prolapsus uteri—2

11. State of os uteri during attack—
   - Relaxed 28
   - Contracted 8
   - Not stated 130

12. Disease appeared before parturition. 1

13. Length of time between parturition and first symptoms of disease—
   - One hour 2
   - Two hours 1
   - Three hours 2
   - Six hours 2
   - Eight hours 7
   - Ten hours 6
   - Twelve hours 9
   - Fourteen hours 7
   - Sixteen hours. 5
   - Eighteen hours. 7
   - Twenty hours 9
   - Twenty-four hours 19
   - Thirty hours 8
   - Thirty-six hours 9
   - Two days 5
   - Three days 7
   - Five days 1
   - Eight days 1
   - Not stated 59

13. Time between inception of disease and beginning of Schmidt treatment: One to twenty-four hours.

14. Number of times infusion of potassium iodide was repeated—

Once	22	Twice	2

15. Time elapsing between application of Schmidt treatment and time the cow was able to stand—

One hour	1	Sixteen hours	6
Two hours	1	Twenty hours	5
Four hours	1	Twenty-four hours	4
Five hours	1	Thirty hours	5
Six hours	11	Two days	6
Eight hours	10	Three days	2
Ten hours	5	Four days	3
Twelve hours	5	Not stated	94
Fourteen hours	6		

16. Number of relapses 4 (fatal).

17. Number of cases of pneumonia 6 (fatal).

18. Quantity of milk secreted during first five days after treatment—

Small	26	Not stated	137
Normal	3		

19. Number of cases in which Schmidt treatment was followed by Mastitis—7.

That in many cases in the above table certain features are put down as "not stated" is in large measure accounted for by the fact that only 110 of the reports were made on the blanks which I sent to the practitioners, the rest being made in the form of a brief summary in a letter. Of these reports made on the blanks only a few gave in detail all of the particulars called for by the questions. I infer, however, that the features set forth in the table may be taken as a fair representation of all the cases treated.

The table shows that most of the cows affected were grades. I may add that most of these were shorthorn grades. Next in point of numbers is the shorthorn breed. It should not be inferred from this that the shorthorn breed is more susceptible, for it is probable that the order of numbers affected among the various breeds is in close proportion with the number of cows of these breeds in the State.

It will be seen by reference to the table that cows affected were chiefly between the ages of six and nine years and at the birth of the third to the sixth calf. This is in accordance with observations elsewhere. Only one of these cases occurred in the primipara and only two in the secundipara.

Nearly all the animals were reported either fat or very fat. Only two cows affected by the disease are reported as thin in flesh. This also is in accord with the usual observation.

The table is in a measure contradictory to some of the current teachings on this subject in respect to the care and feeding of the animal prior to parturition. In the majority of the cases in which this feature was reported upon the cows were at pasture and had no other food. They also had plenty of exercise. Only 14 were stabled and fed liberally, conditions generally thought to predispose to this disease. Only 19 were at pasture and received in addition other food. That most of the cows took the disease while at pasture and not receiving any other food may arise from the fact that this is the way in which most cows are kept in Iowa during the pasture season. We cannot conclude that pasture alone may not constitute a liberal diet to a cow with good appetite and digestion, although it is generally considered that if the grass diet is not supplemented with grain ration the cow is reasonably safe from an attack of parturient paralysis. The above figures would indicate that the conclusion in this respect needs some revision. It is encouraging to note that only 3 cases occurred in cows fed lightly with a view to preventing the disease.

It is worthy of note as being in accord with the usual teaching that nearly all the cows were large or very large milkers.

In nearly every case the parturient act was accomplished in a normal manner. In only three cases did parturient paralysis develop after a difficult parturition. This, however, may be in the same ratio as the normal to the difficult births not followed by the disease. Were this so it would not damage Schmidt's theory of the etiology of the disease, for in order to prove his theory it is not at all necessary to show that the disease followed

an easy birth, although Schmidt cites this circumstance in support of his theory.

The table would indicate that one may look for this disease most commonly within the first 24 hours after the calf is born. In one case, however, it had its onset before parturition; in others, after the first day.

The table shows that the infusion of potassium iodide into the udder was repeated in the course of eight to twelve hours in 22 cases, and was repeated twice in two cases. Of the 22 cases which received two doses each, 7 were fatal, two having had relapses and one pneumonia. There is no means of learning from the reports just what the second or the third dose contributed toward the cure of the disease, but as all these cases were severe ones and the repetition of the dose was strongly indicated, it may be inferred that it is good practice to repeat the dose in eight to twelve hours, provided the cow has not then responded to previous treatment. I think it may be safely concluded that 20 or even 30 grammes of potassium iodide injected into the udder within twenty-four hours will not do harm, but on the other hand may contribute largely toward the cure of the case. It would not be advisable, however, to repeat the dose if the cow has responded to the first one.

It appears from the table that one may expect the cow to have pretty well recovered from her attack within 12 hours after the treatment is administered, although some cases do not yield so soon. A relapse may be expected at any time and it would seem that this renders the prognosis very grave.

Pneumonia is a very grave complication. None of the six cows in which this complication arose recovered. This leads to an inquiry into the cause of the pneumonia. It may be due to dust or particles inhaled during the attack, but is most likely set up in most cases by the entrance into the lungs of drenches designed for the stomach, but failing to reach their destination on account of the inability to swallow. This would lead me to recommend that no medicines be given by the mouth while the animal is unable to swallow, unless given by means of the pro-

bang. The heart stimulants, such as strychnia, atropina, caffeina, tincture of digitalis, can readily be given hypodermically, as can also the cathartic in the shape of a dose of physostigmine. One would judge, however, that, since physostigmine is such a powerful motor depressant, it would be contra-indicated in this disease, yet it has been given with favorable results. For my own part I should not use it and cannot recommend its use. It is not manifest upon examining the theory of the etiology of the disease and the state of the alimentary canal that a cathartic is strongly indicated. The fæcal matter is usually normal except in the lower part of the large intestine and the rectum, from which places it may be dislodged by enemata and by manual means. Would it not be well then to withhold the purgative at least until the cow has regained the power to swallow? I believe, withal, it is good practice to give a cathartic whenever the cow is able to swallow.

One practitioner who has treated a large number of cases with very good success frequently gives nothing but the infusion of potassium iodide into the udder. There is no doubt that many cases are hurried on to a fatal termination by excessive medication. Just where to draw the line is a difficult point which each practitioner must decide in the case before him.

The report of seven cases followed by mastitis warns us that too much care cannot be exercised in sterilizing everything that comes into contact with the udder during the process of introducing the potassium iodide solution. It is certainly true that the potassium iodide alone will not give rise to this accident, which should not be charged against the treatment. It is probably the result of infection introduced into the udder by lack of adequate disinfection.

In most cases reported milk secretion was much below normal in amount for a few days after the injection of the potassium iodide, but was restored to normal in all cases in which mastitis did not develop. This is to be expected, for the treatment brings success partly because it diminishes cellular activity in the udder.

Although the reports do not show the relative value of treatment early in the disease and late in the disease, for some cows treated early promptly died, while others treated as late as 24 hours, got well; yet it is fair to conclude that the earlier the treatment is instituted the more likely it is that the cow will recover.

In the event that the cow suffers from tympanites during the attack of parturient paralysis, resort must be had to puncture of the rumen with the trocar. Some veterinarians have administered medicine through the canula after the puncture has been made and the gases evacuated. This procedure is doubtless as useful as it is unique.

With 76.5 per cent. of cures to the credit of the Schmidt treatment in the hands of the general practitioner in Iowa, who is called upon to treat these cases under all sorts of adverse circumstances, it only remains to advise that this treatment be promptly resorted to in all cases of parturient paresis. If it is not infallible it is at least the best form of treatment for this malady that has thus far been introduced.

It is also to be expected that as veterinarians acquire more practice in its application they will be able to apply it better and with a greater degree of success.

IMPORTANCE OF RECTAL EXPLORATIONS AND MANIPULATIONS.

By J. W. Corrigan, D. V. M., Batavia, N. Y.

Paper read before the New York State Veterinary Medical Society, Sept. 10, 1901.

We have looked at this part of the alimentary canal as a channel merely used to excrete waste matters no longer needed by the organism, but there are other functions of very great importance to us in our practice of veterinary medicine and surgery.

Briefly the anatomical relations of the rectum are: Superiorly to the sacrum; inferiorly to the bladder, vas deferentia, vesiculæ seminales, Cowper's and prostate glands in the horse; in

the mare, to the vagina and uterus; laterally with the walls of the pelvic cavity. Besides these, the parts that may be recognized from the rectum are: Floating colon, great colon, cæcum-spleen, kidneys in small horses, small intestines, internal ingui, nal ring, rumen in cow, ovaries in mare.

The rectum is a great aid in diagnosing many diseases, and a proper diagnosis will be of great help in treatment. Conditions that may be recognized are: Twist or rotation of the colon, enlargement of the spleen and kidneys, abdominal and inter-abdominal tumors, distension of the large intestines with gas, as in flatulent colic; volvulus and intussusception.

In Möller's "Surgery" are two chapters relating to these important conditions, and he lays great stress on rectal explorations; intestinal concretions, various conditions in a pregnant animal, dropsy of the uterus, fracture of the back part of the spinal column and of any of the bones of the os innominati, scrotal and inguinal herniæ, lameness resulting from thrombi in the iliac arteries due to action of the parasite, *strongylus armatus*.

As an aid in performing surgical operations the rectum will be of service in such operations as cryptorchidism, where it is an aid in locating the testicles, in reducing scrotal and inguinal hernia, reducing fractures of the sacrum, ilium, pubis and ischium, reducing twist or rotation of the colon. Of this condition Möller says ("Möller's Surgery," page 286): "The symptoms are not characteristic, but a rectal examination generally removes any doubt. When colic, at first sight, is accompanied by continued pain, and becomes worse hour by hour, the bowel sounds weaker, the pulse smaller and more frequent, and some form of stoppage of the bowel seems certain, a rectal examination will generally clear up the point. Close in front of the anus one feels the distended colon, which may for the moment be mistaken for the overfilled urinary bladder, but careful examination reveals its real nature. The longitudinal muscular bands can be distinctly felt, and show, not only that we have to deal with the colon, but also in what direction torsion has

occurred. When the bowel is in its proper position, they run nearly parallel with the long axis of the body, but in twists a change in their course is distinctly appreciable. In torsion towards the right they run backward and inward; in torsion towards the left, backwards and outwards."

According to Jelkmann, the rectal mesentary, whose fixed border can be felt below the lumbar vertebræ, appears greatly stretched, and in right rotation does not pass perpendicularly downwards, but towards the left, and pressure on it causes the animal pain. Careful examination of the direction of the bands of the colon seems to me of more importance in diagnosis, and no doubt can exist either as to the presence or direction of the torsion if they can be discovered, but the posterior bands of the cæcum, which can be distinctly felt when the latter is distended with food, must not be mistaken for those of the colon. Such an error is avoided by remembering that the cæcum runs from the outer angle of the right ilium in a bow directed backwards and ends near the left stifle.

Treatment is commenced by giving a clyster of lukewarm water in order to clear the rectum as far as possible, and to obtain sufficient room for introducing the hand. Jelkmann inserts the left hand, presses forward towards the left abdominal wall, and endeavors to thrust the left portion of the colon with the convolutions of the rectum forwards from this point towards the middle line of the abdomen. Once the bowel is brought into this position, Jelkmann passes the hand slowly upwards, when the colon falls back over it into its normal position; he considers that the convolutions of the rectum, displaced towards the left lower abdominal wall, having been thrust upwards, leave room for the colon to return to its normal position. My own experiments tend to support this explanation. I replaced a left rotation of the colon in the following way:—After emptying the rectum, the right hand was introduced, and discovered the bands of the colon running from in front, backwards and outwards or towards the left. I now employed the bands of the colon lying above to bring about reposition. Whilst the hand

in the rectum was strongly adducted, I laid its volar surface, or the fingers, against the bands, and after repeated careful attempts finally succeeded in drawing these so far toward the right that that the colon again took up its position parallel with the middle line of the body.

As I had discovered in my experiments on dead animals, in torsion towards the left, the bands of the lower section of the bowel offer a purchase for retroversion. After effecting this, the pelvic flexure of the bowel, until then filled with gas, at once collapsed, the symptoms of colic disappeared, peristaltic action, which had almost completely ceased, again set in, the small frequent pulse altered its character, and half an hour later the recovery of the animal could be confidently foretold.

It is clear that all torsions of the colon cannot be treated by one and the same method; differences in displacement will render modification necessary; but when attention has been directed to the point, experience will give valuable indications for procedure. Puncture of the over-distended colon might possibly assist reduction (p. 275). Jelkmann was compelled to puncture the cæcum five times in thirteen cases, after which retroversion succeeded; the use of the trochar caused no bad results.

The rectum is of great aid in treating diseases—by the use of enemas in flatulent and spasmodic colic, suppositories and enemas for inflammation of the prostate and Cowper's glands. Medicated enemas act almost as quickly as though the medicine was given orally. In cases of torpidity of the bowels due to impaction of the colon, water may be introduced through the rectum clear in to the colon, where it will soften the contents so that it may be gotten rid of. Warm enemas relieve pain in genito-urinary organs and produce urination where urine is suppressed. Cold (not ice-cold) enemas reduce temperature and supply water to the system in pneumonia and other febrile diseases. In dogs suffering from hæmorrhoids and constipation enemas are serviceable and necessary.

The large intestines may be punctured through the rectum when the gas cannot be reached through the flanks.

In some cases, especially in the ox, where the S-shaped curve of the urethra almost prohibits passing the catheter, the bladder may be punctured through the rectum to prevent its rupture and to remove its contents.

In some cases where it is necessary to pass the catheter in the horse the point of the catheter may and does frequently enter the vesiculæ seminales unless directed in the proper course along the urethra by the hand in the rectum.

When it is neeessary to remove the contents of the bladder and the catheter is at home, by placing the hand, which is in the rectum, over the bladder to the fundus and exercising gentle pressure down and backward the urine can be gradually forced out of the animal.

In diseases like tetauus, purpura, strangles, diseases of the throat, and in any condition where the animal cannot swallow, nourishment may be given by the rectum and will support the animal for a great length of time or until it is able to take nourishment in a normal manner.

I know there are many things that I have not mentioned, but hope that I have drawn attention to this valuable, to us, part, and hope to have offered suggestions that may prove of assistance, and in closing I would like to impress upon my fellow-practitioners the advisability of being thoroughly familiar with the anatomy of the parts that can be examined by the aid of the rectum, and this can only be accomplished by making use of this very important channel as often as possible, and although it is a dirty job the dirt will wash off and the satisfaction and the benefit will more than counteract the work of cleaning up.

I am sure that many cases will be treated more intelligently, for many cases result in the death of the animal that had they been examined per rectum, thus learning the true state of affairs, they might have been saved, and if not, at least a correct diagnosis could have been made.

NEXT to the veterinary college, the veterinary journal is the greatest professional educator. None should fail to read it regularly.

THE TUBERCULIN TEST.

ITS USE IN DETERMINING THE PRESENCE OF BOVINE CONSUMPTION.

By H. P. Clute, V.S., ex-State Veterinarian, Marinette, Wis.

Read before the Wisconsin Agricultural Society.

There are many views presented to the public through certain agricultural papers, that are non-professional, and from parties that have had no experience whatever with the disease or tuberculin test for the same, or have arrived at a conclusion from reading articles from such sources as mentioned, or carry the idea that because they have never had tuberculosis in their family or their own herd of cattle, that such a disease does not exist to any extent. I very frequently have filed copies of the *Breeder's Gazette*, dug up and shown me through the country, to prove some insane idea about tuberculosis or the tuberculin test. All skeptical parties are very easily convinced after they have once watched a tuberculin test on a herd where there was known infection, and the subsequent post-mortems of the reacting animals, with the exception of one man, Dr. Roddermund, of small-pox fame. He admitted the animals were diseased, but thought that the rest of the herd ought to be slaughtered, to convince him that they were not in the same condition ; although he had seen pus enough, had he been in a smearing business that day, to cover him from head to foot, in which condition he would look well in an antiseptic glass cage, placed in some corner of a dime museum. There are too many Roddermunds in regard to the contagion of tuberculosis.

Tuberculosis is an infectious disease, the germ of which was discovered by Professor Koch in the year 1882. Up to that time the disease was thought, by a majority of the medical profession, to be hereditary in most cases. As soon as the bacillus was isolated, it gave a field for experiments, which have proven the disease to be contagious in the larger percentage of cases.

It was through Professor Koch's experiment with Koch's lymph or the bacillus of tuberculosis neutralized, that the veterinary profession came in possession of the tuberculin test as a diagnostic agent for tuberculosis, by its causing a rise of temperature in the patient affected with the disease, and no rise or change in those not affected.

ORIGIN OF TUBERCULIN.

Tuberculin is prepared by first injecting the bacillus in a horse, and in twenty-one days drawing off a small quantity of blood, which at that time contains the bacillus in a mild state —on the same principle that diphtheria antitoxin is prepared, or the virus of small-pox is passed through the bovine species to make vaccine to guard against small-pox, only in the latter cases the scabs from the pustules are taken. To doubt the practicability of the tuberculin test at the present time is, I think, analogous to doubt vaccination against small-pox as being a success.

In applying the tuberculin test, you must be very careful to keep the animal as near a normal state as possible, for the bovine species is very susceptible to a high temperature, from excitement, change of food, driving a few miles in warm weather or in hot weather; in the latter I have seen the temperature in many cases run up to 105° F.

The normal temperature ranges from 100 to 102 according to the kind of food the animal is receiving. A steer fattened on corn, or a cow being forced for the milk product, often runs 102 at normal. It is not practical to apply the tuberculin test in hot weather, as the temperature is liable to run up in the middle of the day enough to bring the animal inside the limit of 2 degrees, which I condemn, while many claim one degree and a half is sufficient. I had much rather keep a suspected animal not rising the required 2 degrees and retest at a future date. I am satisfied that the tuberculin test, when carried out properly, is infallible. I apply the test by taking the temperature morning, noon and evening to get the normal temperature.

If I find all animals normal, nor rising the 2 degrees give any other cause for rise of temperature, the next day I inject tuberculin at 8 P. M., and begin to take the temperature at 6 A. M. next morning, taking the temperature every three hours. You will generally find the temperature of an affected animal the highest at from 13 to 16 hours after injection and generally it will begin to recede at 21 hours, therefore not necessary to take any more readings of the thermometer, only in occasional cases, where there is a gradual rise up to that time. The affected animals during the forenoon may have a chill, shiver, and if the thoracic cavity is affected or the adjacent glands, the animal generally coughs a good deal more than usual while undergoing the test.

The animals not affected do not evince any change whatever. It is not uncommon for an animal affected to run up 5 degrees. The animals in the incipient stage of the disease react the highest, the ones permeated with the disease show the least reaction. I find that by giving larger doses than is usually prescribed to chronic cases, they will react stronger. I have, in various parts of this State, post-mortemed 278 head of cattle of all breeds and ages. In every case where the animal reacted 2 degrees, barring one, I have had no trouble to find the disease. I have held post-mortems in every case where there has been a part of a herd affected, to satisfy the owner, for in many cases it would hardly be believed that the animals were diseased until it is shown on the post-mortem. An expert would not be able to tell in those cases, without the aid of the tuberculin test; thus the animal may be in condition to throw off the bacillus and spread the contagion long before the owner notices that the animal is sick. This of course necessitates the slaughter of animals in the incipient stage of the disease or the isolation of the same from those not reacting.

WHERE MOST PREVALENT.

The older the dairy country, the more prevalent we find the disease. It is more widely disseminated in the southern part

of the State, which rule follows the same as the larger percentage in foreign countries, where dairying has been carried on extensively, and also in the Eastern States. In Denmark, when they began to try to eradicate tuberculosis the test showed 40 per cent. of the cattle to be affected. In Massachusetts, about 18 per cent., and so on down. In Wisconsin we are not so badly off, our percentage being about 7.29 per cent. affected.

Out of 586 head tested, where there was known infection, 210 animals reacted to the test, which I have slaughtered and post-mortemed. Out of 3223 tested where there was no known infection, 68 reacted. The cattle tested where there was no known infection were in State herds and stock for shipment, the larger percentage being picked milk cows for Illinois and were from all parts of the State. Total tested 3809, reacted, 287. The cattle where there was no known infection being nearly six times greater than where the infection was known to be present, it is fair to presume that 7.29 per cent. is as close an estimate as we can arrive at at the present time.

While the percentage is not large, it is too large to countenance without using the most strenuous measures to prevent the spread of the contagion. The contagion of bovine tuberculosis spreads slowly, still surely. It is hardly noticeable until the breeder or dairyman has a badly infected herd. It certainly is too large for breeders to form associations against, as has been done by the shorthorn breeders of Iowa, or equivalent to the same, an anti-tuberculin association. It is as preposterous as forming an association against vaccination to stop the spread of small-pox.

When you contract to buy an animal for breeding purposes and the owner will not submit to have the tuberculin test applied, rest assured the owner is afraid the animal may be affected and does not want to run the risk of having it known. Such an animal is dangerous to take into your herd; in fact, if breeders would make it a rule not to take a strange animal into their healthy herds without submitting them to the tuberculin test, they have done a great deal toward the suppression of the spread

of the contagion. A great many breeders and dairymen have suffered large losses in this State by bringing an infected animal into their herds. The Clap herd of Guernseys, which were dispersed, carried infection into over 20 herds, as far as known.

There has been much said about the susceptibility of different breeds of cattle to contract the disease. I do not think there is any difference in regard to the different breeds if they are subjected to the same conditions and same source of contagion. Cattle that are housed most of the time with one that is affected will more readily contract the disease, as the bacillus raised in the pus from the lungs will readily dry and be disseminated and taken through the air passages or food. While, on the other hand, light or heat or severe cold will render the bacillus inert. You are very apt to find reacting animals on both sides of one badly affected with pulmonary tuberculosis for from two to three animals each way, if the animal is stationed near the middle of the row, and in other cases no other reacting animals in a herd of 40 or 50.

The proudest breeders in the State to-day are the ones that have had their herds tested and the diseased ones disposed of, and well they may be. They can sell any animal for breeding purposes to a neighbor and feel that they are not endangering the herd of the same to the contagion, or a milch cow, or milk, or the product of their dairy, without feeling that they are endangering the lives of any family. There is no question but that the contagion is carried by milk, and is communicable from bovine to man and from man to bovine.

I found one cow with affected udder and held post-mortem upon two of her calves, one eight months old and the other a year and a half. I found both calf and yearling badly affected along the abdominal viscera and one in the glands of the thoracic cavity and one lung. They had all reacted to the tuberculin test. It is not absolutely necessary to slaughter an animal in the incipient stage of the disease, but as you can never tell at what time they arrive at the point of spreading the contagion, I think it is better in most cases to dispose of them at once.

THE DEATH METHOD.

It has been proven in Denmark, and followed in this country, that healthy calves can be raised from tuberculosed cows. This is called the Danish method. It is carried out by taking the calf from the cow as soon as it is dropped, isolating the cow and sterilizing the milk from same to feed the calf. You can readily see that this is very expensive, as you have to keep a cow for at least a year and a half with no other remuneration coming from same except the calf. I would recommend this as being practical only where you want to save a strain of stock that you cannot, in your estimation, replace or in very expensive animals, that you could figure out a profit in.

I find one objection that breeders of blooded cattle have to the tuberculin test, is, they are afraid that if any animal would react it would be scattered abroad. They have had infected animals in their herds and thereby hurt the sale of their stock. The result of a test should have directly the opposite effect, as after their herds have been tested, infected ones removed, that is evidence that their cattle are healthy and certainly are worth more to any man for breeding or milk purposes. The stock raisers that raise blooded stock ought to be the first to create the latter impression, while on the other hand many are going exactly the opposite direction and the contagion goes on. I do not believe in going at it in too radical a way, the way they have done in some of the Eastern States, not but what I think they are right in trying to eradicate the disease, but they defeated the end that they aimed at in many cases, simply because the breeders and dairymen had not looked into the matter thoroughly themselves and they thought they were being persecuted. I believe that when they thoroughly look into the matter and see that it is for their own interest and more thoroughly understand the disease, that they are the first people to help suppress it. It has been my whole aim since I have held my present office to do as much to enlighten the cattle interests on this subject as possible, and think that I have done more to do so by the post-mortems I have held of reacting animals than any other way.

Seeing a thing is not reading what some one else has seen, or in many cases probably written about and not seen. I find some people who don't care to see, but they are the ones that do the most talking against the tuberculin test and the presence of tuberculosis. A case of this kind occurred the other day at Fond du Lac, when I held post-mortems at a slaughter-house on 19 head of cattle that reacted to the tuberculin test. These came out of three different herds; eleven were thoroughbred shorthorns. A gentleman who had known of the cattle for some time and knew that two in one herd had died of the disease in the previous six months, said: "You have got cattle in that bunch there that there is nothing wrong with." I asked him if he had had any experience with the tuberculin test; and he said: "No." I then asked him to come and see the post-mortems and convince himself as to whether the test was right or wrong. He said he would not; that he didn't believe in it; that I might just as well slaughter his cattle as the ones in question.

REPORTS OF CASES.

"Careful observation makes a skillful practitioner, but his skill dies with him. By recording his observations, he adds to the knowledge of his profession, and assists by his facts in building up the solid edifice of pathological science."

PECULIAR AND PERSISTENT SYMPTOMS CAUSED BY IMPACTION OF THE CÆCUM IN A HORSE.*

By L. R. WEBBER, V. S., Rochester, N. Y.

July 12th, 1901, I was called to see a black mare. Dr. Carr Webber responded and found her suffering apparently with severe colic. Gave her the usual treatment. Was recalled the same evening and found her still suffering, with intervals of ease. Gave usual treatment and ordered one quart of raw oil. Left instructions to remain with her until easy and report in the morning.

July 13th. Owner reports that mare has colic again. We responded and found that mare had very slight pain and only once in a while. No disturbance in pulse nor temperature.

*Read before New York State Veterinary Medical Society, Sept. 11, 1901.

Gave usual colic draught and did not think it strange, as we often have cases recur once or twice. At night still has attacks of pain occasionally. Removed her to hospital; gave pint raw oil and calomel, one drachm. Saw no sign of pain after being taken in hospital.

On 17th she was eating two quarts oats at each meal; sent her home and sent solution of nux and gentian to be given three times a day.

July 19th. Called again with the same report; horse had been eating until noon; had not worked and had been fed on grass, bran and oats. Took her to hospital; gave two drachms aloes and one drachm calomel.

On the morning of the 20th she was physicing quite freely. While in hospital neither myself nor the men who are about night and day ever saw her show any signs of pain. Sent her home on the morning of 23d eating fairly well, pulse and temperature normal.

She was returned the same evening with report of same old trouble. Could hardly believe it, as she showed nothing wrong whatever. Had her put in straight stall so as to watch the condition of her bowels. They seemed to be normal, but no great quantity. She was eating only fairly well. Gave a quart of raw oil and gave gentian and nux three times a day. Kept her until the 28th. In all this time she had no pain, no abnormal pulse nor temperature. Sent her home with instructions to exercise and put at light work.

Heard no more until August 3d, when owner reported that mare had colic again. My brother, Dr. Carr Webber, responded and reported that he guessed owner was mistaken, as she seemed O. K., with temperature and pulse normal.

August 4th. Owner said mare had several bad attacks during the previous night. Pulse and temperature normal; not eating.

August 5th. Same report, and mare had slight pain while I was there. I expressed opinion that it might be from ball of aloes and calomel I had given the day before.

August 6th. Mare still off her feed, lies down considerably, paws once in a while, pulse and temperature normal. Pulse has been weak for past two days.

August 7th. Called 6 A. M.; mare very bad; sweating a great deal, temperature 108°, not able to get any pulse. Died about 9 A. M.

Post-mortem.—Bowels almost empty and slightly reddened

in streaks, cæcum packed full and hard—so hard that the contents could be rolled about after being removed. Cæcum was also ruptured near the ilio-cæcal valve.

PROLONGED PARTURITION.

By W. S. Stinson, Crystal, North Dakota.

On June 6th, 1901, a Mr. Carr called at my office and asked me to give him some medicine for a mare that was bleeding from the vagina. After questioning him, I told him I was unable to prescribe without seeing the patient. On arriving at his stable, I found the mare feeding and expelling a small amount of a chocolate-colored fluid from the vulva at short intervals. I asked if she had been working and was informed that she had been until that day, when it was raining so that it was not a fit day to work. Owner said that mare had lost her foal one week previously, being turned to pasture at night and brought into stable in morning and fed grain before going to work. He said the night she lost her foal he found her in the morning by herself and noticed the ground pawed in several places and thought she had an attack of colic during the night. On being brought to the stable Mr. Carr's father said she had foaled and to turn her out to pasture, which was done. She ran directly to one of those places where the ground was pawed, stood there and neighed. That was more convincing that she had lost her foal in the timber. Search was made for the foal without finding any trace of it; they felt satisfied, however, that the foal was eaten by hogs or wolves. The mare was taken in and put to work; she ate, drank and worked for a week without showing any signs of sickness. I then made an examination and found the colt still in the uterus; the os was fully dialated, and a hock presentation. I removed foal, which was so badly distended with gas and so decomposed that when the hips were outside of the vulva the abdomen burst and let the intestines run out on the floor. The colt was fully developed to all appearances, and had come to proper time to foal.

The reason I report this case is that the mare had been trying to foal in the pasture, then all labor pains ceased; she fed and worked as usual up to the date that I relieved her of her foal. I have always been of the opinion that when a mare commenced to foal the labor pains would continue until the foal was delivered or death ended the mother, and those that I have had an opportunity to talk with were of the same opinion. While this is a peculiar case to me, it may not be to others, and

I wish those who have had similar cases would report them. I may say that the mare made a quick and complete recovery.

DEPARTMENT OF SURGERY.

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SURGERY OF THE EYE, EAR AND UPPER AIR PASSAGES.

(*Continued.*)

5. Surgical Treatment of Wounds of the Eyeball.—In our brief consideration of the superficial wounds we will adhere to the following outline, which will include most of the common injuries to the eyeball of domestic animals:—

I. Wounds or injuries.
  1. Penetrating.
    (*a*) Punctured.
    (*b*) Incised or lacerated.
  2. Superficial.
    (*a*) Incised.
    (*b*) Lacerated.
    (*c*) Scratched.
    (*d*) Abraded.
    (*e*) Compressed.
    (*f*) Contused.
    (*g*) Contusive.
    (*h*) Erodent.
II. Rupture of eyeball.
III. Abscesses.
IV. Fistulæ.
V. Ulcers.
VI. Burns and Corrosions.
VII. Foreign bodies in eyeball.

1. *Penetrating Wounds* are not very common in domestic animals; we occasionally meet them in general practice, in animals that have been injured by street cars, railway trains or "runaways." These wounds are most always in the anterior part of the eyeball, generally in the cornea or sclero-corneal margin; their shape, form and size depend much upon the way in which the injury was inflicted, and the nature of the object which caused the wound. Some of these wounds may be so small that they can scarcely be noticed and still may injure the deeper structures

of the eye to such an extent that the sight may be impaired or even destroyed; while others may destroy a large part of the eye and extend to structures beyond, and injuring the orbit. Such punctures are invariably serious and the only object in view in the treatment is to prevent infection.

There are other incised and punctured wounds of the eye which are more frequently observed in horses than those above mentioned; such as are inflicted by stones or other hard solid substances thrown by boys; wounds caused by whip lashes, or those inflicted by buckles on halters or bridles used by brutal, merciless and inhuman attendants in beating horses over the head. Wounds of this class are usually in the cornea, it being the least protected, and are most invariably serious ones, but yield to treatment much better than penetrating. Penetrating wounds with prolapsus of the iris or lens are always followed by loss of sight; but punctures in the sclera or sclero-corneal margin are occasionally successfully treated, leaving the eye with but a small cicatricial impression, and the patient with unimpaired sight; but when these wounds are in the cornea, the results are not so encouraging, even if infection is obviated and the wound healed by first intention, it is seldom that in such instances the cornea can be "cleared up" sufficiently to not impair the sight.

Besides the cases of penetrating wounds of the eye that have come under our observation, Dr. Wm. Schumacher, of Lagrange, Ill., reports a case in which a horse was injured by a street car, and the eye punctured by a piece of glass. The contents of the eye were removed and infection prevented.

Dr. A. H. Baker, of Chicago Veterinary College, in a summary of results obtained from the treatment of punctured wounds of the cornea, states that but a small percentage of cases terminate favorably; most of them are left with unsightly cicatrices, impaired vision or unpreventable infection, which subsequently requires enucleation or evisceration.

2. *Superficial Wounds of Eyeball.*—Wounds of this class may vary in severity according to the danger of infection and extent of the wound. A great many of these wounds are found in the cornea or corneo-scleral margin, this being the part of the eyeball most exposed. The extent of wounds of the cornea is determined by inspection, which is aided by a reflection of light upon it at various angles; this will show irregularities in the surface and structures involved. Slight injuries to the cornea are often only detected by very close inspection. Large

denuded areas may exist and pass unnoticed unless detected by the use of fluorescin. Fluorescin used for this purpose is a 2 per cent. solution with sufficient carbonate of soda to give it an alkaline reaction. When this solution is dropped upon the cornea, the part divested of its epithelium will become greenish-yellow, while the portion which is only partly deprived of its epithelial covering, or entirely free from injury, will be unaffected. By this simple procedure a very thorough examination of the cornea will enable the inspector to detect the slightest injuries that may involve the subepithelial structures.

Superficial wounds may be caused in the same manner as perforating wounds, together with many other circumstances, which only cause slight or superficial injuries; the nature of these have already been mentioned.

Incised Wounds of the anterior surface of the eyeball may be surgical or traumatic; the surgical are usually made with aseptic precautions and generally heal very readily, but traumatic wounds are often infected by the object that inflicted them; and, unless rendered aseptic immediately, they are likely to terminate unfavorably.

Lacerated Wounds require more attention; they are more difficult to clean and may require excision of its ragged edges, which often makes it impossible to close the wound by sutures.

Wounds caused by contusion or concussion are much the same in severity. Contusions of the eyeball usually result from blows with some solid or blunt object, such as a fork handle, club or "twitch"; or a compression of the eyeball by some sudden force, such as a man's weight upon an animal's head when cast will occasionally cause such injuries. Contusions are bruises without breaking the external covering of the eyeball; they may bruise the underlying structures without any apparent laceration or may result in a solution of contiguity or continuity of these structures. Blows on the eye sometimes cause spasm of the iris, which is marked by a contraction of the pupil (*myosis*); paralysis of the ciliary muscle (*cycloplegia*), which is often accompanied by a dilatation of the pupil (*mydriasis*); temporary loss of sight without any perceptible anatomical alteration of retina (*traumatic amblyopia*); and paralysis of the iris (*iridoplegia*).

Concussions seldom cause superficial wounds, but the lesions following them are generally intraocular, with the exception of rupture of the eyeball. The lesions may be simple or multiple, and may consist of ruptures, detachments, lacerations, paralyses, spasms, or dislocation of the lens.

(*a*) *Ruptures.*—Concussions or compressions may cause a rupture of the eyeball, choroid coat, zonula of Zinn, intraocular blood vessels or capsule of the lens; each of these may occur singly, but in some instances, two or more of these ruptures are caused by the same injury. (*b*) *Detachments.*—The retina, choroid or iris are occasionally detached by concussions and sometimes lacerated. Detachments of the retina more commonly result from morbid conditions that are not caused by traumatic injuries, although such injuries followed by a loss of vitreous humor is sometimes followed by such a condition. Concussion of the retina (*commotio retinæ*) is probably the most common condition following such injuries, and may terminate in œdema of the retina, which is a very serious sequel; or, it may produce a condition known as traumatic anæsthesia of retina marked by only a temporary impairment of vision. Detachment of the choroid is a rare condition and seldom occurs without a displacement of the retina; although it is an exceedingly rare condition, it is known to be caused by concussion of the eyeball (*Amer. Jour. Opthal., Mar.*, '97). Detachment of the iris is a common condition resulting from contusions, concussions or compressions of the eyeball. In some instances the iris is detached from the entire peripheral attachment (*traumatic aniridia*), while in others, only part of it is detached from its periphery (*iridodialysis*). Beside these detachments, we may detect radial and meridional lacerations. (*c*) *Lacerations* of the iris and ciliary bodies. The iris may be lacerated in various ways; the radial fibres alone are sometimes torn, while in other instances both meridional and radial fibres are involved (*traumatic coloboma*). Lacerations of the ciliary bodies are not easily detected and seldom, if ever, occur without complications.

(*d*) Paralysis of the iris and ciliary muscle are two conditions that occasionally are caused by trauma. Paralysis of the iris (*iridoplegia*) due to injuries to the eye may be of short duration, lasting but a few days, but in some cases, especially when associated with other injuries, the dilatation of the pupil (*mydriasis*) becomes permanent; this is caused generally by adhesions of the iris to surrounding structures. Paralysis of ciliary muscles (*cycloplegia*) sometimes follows concussions, or contusions, of the eye. This, however, is not so serious as iridoplegia.

(*e*) Spasms of iris and ciliary muscle are conditions that are not very common, at least they are not detected in domestic animals.

(*f*) *Dislocation of Lens.*—The changes in the position of the lens may be acquired by concussion or compression. The lens is held in position by the zonula of Zinn, and its displacement is made possible by the rupture or relaxation of its fibres, which usually results from injury to eyeball by concussion or compression, that forces the aqueous humor against the lens. The displacement may be partial or complete, the lens may be forced into the vitreous humor or into the anterior chamber of the eye; when the zonula is only partially ruptured, it may be thrown into the pupil and held in that position by the sphincter of the iris; and, when the sclera is ruptured, it may be lodged under the conjunctiva or Tenon's capsule. In veterinary practice, the surgical treatment of dislocation of lens is not a very valuable procedure; if located under the conjunctiva it can easily be removed, but the advantages gained from such interference does not increase the appearance or usefulness of the patient; in fact, surgical intervention should not be attempted unless complications indicate undesirable sequelæ.

II. RUPTURE OF EYEBALL.—Ruptures of the eyeball are *partial* or *complete*. In *partial rupture* of the sclera the inner fibres are torn and the outer ones are only stretched. Such injuries are usually accompanied by intraocular lesions. *Complete rupture* of the sclera is not a common occurrence, but when ruptured, the wound is generally in the anterior part of the sclera between the cornea and Tenon's capsule and above the cornea.

The prognosis in ruptures of the eyeball is never very favorable; the iris may adhere to the cicatrix; the eyeball may atrophy or shrink from the loss of humors; extensive intraocular hæmorrhage is often followed by inflammatory reaction; and, partial ruptures of sclera may never reunite, and be followed later on, by the development of scleral staphyloma. Only in very rare cases is the vision unimpaired. The treatment in most cases is confined to the external wound; while in severe injuries of this kind enucleation or evisceration is indicated.

III. ABSCESSES are very uncommon conditions in domestic animals; they may occur in the cornea, sclera or conjunctiva. Those of the cornea are generally sequelæ of other pathological conditions, which are usually traumatic or infectious; those of the sclera are very rare, and when they do occur, they result from traumatic injuries; they are seldom, if ever idiopathic; and those of the conjunctiva are more common than either of the above mentioned abscesses; however, the palpebral conjunctiva is more susceptible than the ocular.

All abscesses should be opened and thoroughly cleaned, if necessary they may be scraped or curetted. When a clean healthy surface is obtained, the wound is treated as a surgical wound, and unless a large area is involved, it will heal very readily if it is not located in the cornea.

IV. FISTULÆ may result from various causes, usually, however, from traumatic or surgical wounds. Perforating wounds that open the anterior chamber are often very troublesome; intraocular pressure drives the aqueous humor through the opening, and prevents union by first intention. Paracentesis of anterior chamber sometimes causes open wounds, which do not heal very readily. Cysts in the coats of the eyeball occasionally open into the anterior chamber and allow the aqueous humor to be forced through the fistula, causing an enlargement or sac or bulging of the conjunctiva (*chemosis pallida*). The *treatment* of ocular fistula is sometimes a very simple procedure; it depends much upon the nature of the wounds; if infected, it must be made aseptic, and when this is accomplished, the intraocular pressure must be removed by paracentesis of the anterior chamber; if the wound has been made aseptic, it will unite before the anterior chamber is refilled.

V. ULCERS on the antro-external surface of the eyeball are very common conditions; they may be simple, traumatic, and toxic. Ulcers are generally located in the cornea, and may be sthenic or asthenic, especially when due to infection; occasionally some of them are very obstinate, and do not yield to treatment, but keep spreading in all directions (*serpiginous*) from the sclero-corneal margin; when they involve the deeper structures, they are named rodent ulcers; these sometimes cause perforations. Ulcers in the conjunctiva or sclera are generally due to trauma, and are more satisfactorily treated than those of the cornea. Corneal ulcers are sometimes very difficult to detect, especially when they result from vesicular keratitis; these vesicles often rupture and leave large epithelial denudations, which, in the early stage, can scarcely be discovered without the use of *fluorescin*. In serpiginous ulcers (*creeping ulcers*) the destruction of tissue may extend until it involves the entire anterior surface, and leaving nothing but Descemet's membrane; and, when this is perforated, the aqueous humor escapes and the iris falls against the posterior wall of the cornea, which closes the opening; in the course of time the iris adheres to the wall (*anterior synechia*) and the anterior chamber refills. When the opening is very large we may have prolapsus of the iris. The

course in all cases of ulceration depends upon the activity of morbid agents, and the ability of the tissues to resist their encroachment. In very old patients and those out of condition, superficial ulcers are more serious than in young or healthy ones.

Treatment.—The treatment in ulceration of the next rael surface of the eyeball should be preventive, therapeutic, and surgical when necessary. If these wounds are infectious, the patient should be isolated, and all possible care taken that the disease is not transmitted to other animals. The therapeutic treatment must be governed by the physical condition of the patient. The surgical treatment must meet the requirements necessary to encourage reparation; such as cauterization, curetting, paracentesis or subconjunctival injections should be used when indicated. The conjunctival sac must be thoroughly washed and rendered aseptic if possible; the eye must be well bandaged and dressings changed as often as necessary.

VI. Burns and Corrosions.—These are injuries that seldom occur in domestic animals, excepting as rare accidents. Heat and chemicals have the same effect upon the tissues of the eye; the anterior portion of the ball being the most exposed is the part affected; the wounds are generally sup erficial.

Treatment.—In the treatment of these wounds' the first step to be taken is to allay pain by the application of cocaine. When the injury is due to caustic alkalies, the alkali may be neutralized by a diluted acid, such as acetic acid (*vinegar*); if caused by acids, the acid must be neutralized by an alkaline solution made of bicarbonate of soda or bicarbonate potash. After neutralization, the eye must be thoroughly washed and all foreign substances removed from it. Cold packs should be applied to prevent inflammation, and the treatment subsequently required is generally the same as that of other wounds of the eyeball. Adhesions of the palpebral and ocular conjunctiva must be prevented by passing some smooth flat substance between the lid and ball at least once a day, until the danger of adhesion is passed.

VII. Foreign Substances in Eyeball.—Under this head we will consider foreign bodies in the external coats of the eye and those within the eyeball. Small bodies of various substances are sometimes found in the ocular conjunctiva imbedded in the epithelium. These bodies are often very difficult to detect; in the early stage their presence is marked by severe pain and lachrymation, which is soon followed by inflammation. These

foreign bodies are only detected by careful inspection, aided by whatever means can conveniently be used to make a good examination.

The treatment in such instances consists of nothing more than the removal of all foreign substances by the most conservative means, making the wound aseptic and preventing infection.

Foreign Bodies Within the Eyeball are more serious than those lodged in the coats of the eye. Any small, hard object, such as pieces of glass or stone; spicula of steel, iron, brass or copper, or splinters of wood, may be forced through the coats into some of the structures within. They most frequently enter through the anterior part of the eye—cornea or corneo-scleral margin.

The most important features in connection with these wounds are, the size of the object, the immediate effect upon vision, the direction and course of the object and its location. If the object cannot be located and if on its course it has destroyed the lens and let the humor escape the sight cannot be restored, and the only method to adopt in such instances is enucleation or evisceration. Penetrating wounds in the eyes of domestic animals are always very serious, but when the object does not go beyond the anterior chamber or iris, it can be removed and the wound treated as a penetrating wound. If the wound can be made aseptic, the sight may be restored, leaving but a cicatrix in the external surface of the eyeball. The course to adopt in such cases is to learn the extent of the injury and to adopt conservative surgery. An attempt may be made to save the eye when there is a possible chance to do so; but if there is no possible chance of restoring vision, the eyeball should be enucleated or eviscerated.

SURGICAL ITEMS.

"*A New Name for an Old Operation.*"—The new (?) method of performing tracheotomy, described for McKillip in the September number of the REVIEW, has been in use for more than a quarter of a century—tube and all. Möller, Cadiot, Chauveau, Hoffmann, Dick and others, all refer to transverse tracheotomy through the inter-cartilaginous bands, but since these surgeons and writers have found no occasion nor thought it worth while to claim it as their own artifice, we presume that no exception will be taken to the new nomenclature.—(*L. A. M.*)

In the Journal of the American Medical Association, August 31, 1901, appears an article entitled "Notes on Anæsthetics," by D. H. Galloway, M. D., of Chicago, Ill. Most of the notes referred to in the article are as important to the veterinarian as to the human surgeon; and we will quote the valuable ones to the veterinary surgeon with due credit to the author and *The Jour. A. M. A.* "A man cannot do two things at once so skillfully as he can do either one of them by itself. A surgeon cannot do his most skilful operating while devoting half his attention to the anæsthetic. * * * A surgeon is frequently more concerned about the result of the anæsthetizer's work than he is about the results of his own work. * * * Constant anxiety about the anæsthetic divides the attention of the surgeon between what he is doing and what some one else is doing and must hinder the progress of the operation. * * * In many cases more skill is required to administer the anæsthetic than is required to do the operation. * * * An operation may be devoid of danger; an anæsthetic is never administered without jeopardizing the life of the patient. * * * In more than half of the cases the patient is in greater danger from the anæsthetic than he is from the operation. * * * A good anæsthetizer need not necessarily be a good operator; neither are all surgeons good anæsthetizers. * * * Death from an anæsthetic may occur in the hands of the most skilful anæsthetizer, but in a great majority of cases in which death occurred the anæsthetic has been in the hands of the unskilled. * * * The skilled anæsthetizer seldom, if ever, touches the globe of the patient's eye with his fingers; it is unnecessary and may do much damage. * * * The anæsthetizer should be considered a consultant to the surgeon, rather than his assistant; it is as important that he be an expert in the giving of anæsthetics as that the surgeon be an expert in operating. * * * The surgeon cannot do any operation of consequence and administer the anæsthetic too; therefore, the patient should be made to understand that at least two men are required and that they are equally entitled to pay for their services. * * * The anæsthetizer must not forget that the anæsthetic is to be given on account of the necessity for surgical operation and that the reverse is never the case; hence, the anæsthetizer's position is of necessity subordinate to that of the surgeon. As a rule the anæsthetizer must use the anæsthetic selected by the surgeon, though when anæsthetics are administered only by skilled men it is probable that a selection of the anæsthetic will be left to the anæsthetizer. * * * No man can safely administer an anæsthetic and watch the op-

eration at the same time; if a death occurs while he is so engaged he should be held guilty of criminal carelessness. * * * During anæsthesia the patient's life is in continual and *imminent* danger and his safety depends not only on the skill of the anæsthetizer, but also on that person's constant and undivided attention. The indifferent or inattentive person has no business with anæsthetics."—(*E. M.*)

EXTRACTS FROM EXCHANGES.

GERMAN REVIEW.

By ADOLPH EICHHORN, D.V.S., Bureau of Animal Industry, Milwaukee, Wis.

MEAT AND EGGS [*Balland*].—The chemical composition of meat in mammalia and fowls, and also of the chicken egg, was subjected to a series of thorough experiments, which were communicated to the Paris Academy of Sciences, by the food chemist Balland. It is very difficult to determine truthfully the chemical composition and by this the nourishing value of the different meat products, as the samples submitted for examination show marked differences, so that unobjectionable results can only be obtained by a very extensive work. Such was performed by Balland, and his principal results can be summed up as follows: The meat of the four quarters, in the principal mammalia which serve as food (cattle, calves, goats, sheep, rabbits, hogs, asses, horses and mules), contain (after the removal of the proper layers of fat) on an average 70-78 per cent. water, ½-5-4 per cent. mineral agents, 1.4-11-3 per cent. fat, and 2-3½ per cent. nitrogen. Heart, liver, lung and kidney contains the same quantity of water and nitrogen as lean meat, the amount of fat remains under 5 per cent., the inorganic substances vary between 1-1.7 per cent.; besides the lung contains small quantities of mangan. In the blood of cattle, calves, sheep or hogs, there is up to 83 per cent. water, its inorganic substances are below ½ per cent., traces of fat, and the same quantity of nitrogen as it is found in lean meat, which naturally contains less water than the blood. Fried or broiled meat contains about the same quantity of nitrogen, fat and salts as are present in raw meat. But when taken in consideration that the meat in frying loses a great amount of water, and therefore shrinks, so the nourishing property of fried meat, compared with the same

weight of raw meat, is considerably higher. In frying the water contents is reduced to 64-42 per cent., depending on the thickness of the pieces and on the length of time it is in contact with the fire. Boiled or stewed meat does not only lose water by preparation, but also soluble nitrogen substances, fat and especially salts, which enter the bouillon of the soup or the gravy of the stew, and still then the boiled meat has more nourishing properties for the same weight than raw meat. The meat of fowls (geese, ducks and chickens) contains the same nutrients as the meat of mammalia, but in somewhat higher proportions, as the amount of water does not reach 70 per cent., and in the roast chicken becomes reduced to 52 per cent. The chicken egg deserves special mention. It is known the white and the yolk have a different composition; the white contains 86 per cent. water, 12 per cent. albumen and ½ per cent inorganic agents; the yolk only 51 per cent. water, 15 per cent. nitrogen, 30 per cent. fat, 1½ per cent. inorganic substances. The egg in whole consists of ¾ of its weight of water, and therefore produces ¼ pure nutrients. Two eggs weigh on an average without the shell about 100 gm. and accordingly 20 eggs possess equal nutrient material to 1 kilogm. of meat. Consequently a hen furnishes inside of a few days a large amount of nutrients, equalling its own weight; they are certainly wonderfully productive, and one cannot emphasize enough the cultivating of the higher breeds from the standpoint of food economy. As an example, to illustrate the importance of the hen's egg as food in large cities can be taken the fact that Paris in the year 1898 consumed 588,299,120 eggs, which by an average weight of 50 gm. represent the nutrient properties of 27,000,000 gm., which is equivalent to 168,200 head of cattle with an average weight of 400 kilogm (dressed). These eggs represent the same amount of nutrients as two-thirds of all the introduced cattle of the same year.

CARCINOMAS IN YOUNG ANIMALS [*Dr. Goerig*].—The statistic as to the occurrence of carcinomas in man teaches that this is a disease principally of old age. Fröhner also proved in 262 cases of dogs, that only older animals were affected, while in dogs under two years, he never observed a case of carcinoma. Goerig found tumors in the kidneys in two seven-months-old hogs, which he diagnosed microscopically as adeno-carcinomas. Likewise he observed in the liver of a two-year-old heifer a carcinoma 27 cm. long, 17 cm. wide and 8 cm. thick. In another case, the left ovary in a two-year-old heifer transformed into a

tumor of the size of a man's head ; here, too, was the diagnosis of carcinoma established.—(*Deutsche Thier. Wochensch.*)

ACUTE GLANDERS IN MAN [*J. Koch*].—At the meeting of the "Free Union of Berlin Surgeons," on May 13, 1901, J. Koch reported an interesting case of acute glanders infection in man, which is rarely observed. The described case is of very great interest as it treats of a primary lung glanders, a mode of infection which is still disputed by some observers. Reporter also remarks that this case particularly is of interest to veterinarians as it concerns their colleague, who became a victim of his profession. The case described by Koch is as follows: A county veterinarian, 45 years of age, became sick with high fever and a slight left-sided pleuritic exudate. After a few days a peripleural abscess formed on the left side between the 10th and 11th ribs, which was operated upon by Prof. Dr. Rotter. At the expiration of two more days pustules and abscesses made their appearance on the skin all over the body, which numbered about 500 in all ; at the same time the back of the nose reddened and widened in the form of an erysipelatous swelling. There was a scanty purulent discharge from the nasal mucous membrane. With this a continual high fever was present, over 39° C. The patient died from his sufferings after 14 days. The diagnosis of glanders was established during life by the characteristic pustules and abscess formations on the skin, by the results of the bacteriological examination, showing the bacilli on the dry coverglass preparate, which were taken and preserved from the contents of the pustules. The pathological condition of the lungs found on autopsy makes it very probable that they were the organs primarily affected. Both apexes of the lungs contained glandular nodules, the largest in the apex of the left lung, which was of the size of an apple, and was already infused with pus. Further, there were deep hæmorrhagic nodules in the hyperplastic spleen present. Growths of the bacilli were obtained from the blood of the left auricle, from the pleuritic exudate of the left side, from the nodules of the lungs and spleen, also from the contents of almost all the skin pustules. Two male guinea-pigs succumbed to the infection from inoculation of glandular material, when two days after the inoculation a great swelling of the testicles appeared (the Strauss testicle reaction). From the experiments on the guinea-pigs it becomes evident that a reaction can be obtained, not only from an intraperitoneal inoculation of the material, but also from a subcutaneal inoculation. Koch con-

siders as a constant symptom of glanders the high continued fever. Chills are not present. As the second most frequent symptom considered by the author, is the appearance of the pustules and abscesses on the skin. This manifestation indicates that the glanders bacilli are spread all over the system, and is a positive sign of the approaching death. Frequently the glandular nodules may be present in the skin and muscles. Only in about 50 per cent. of glanders in man does glanders of the nose appear, which, with the erysipelatous swelling of the back of the nose, becomes characteristic. In some cases there may be observed a diseased condition of the joints, with pussy infiltration and phlegmonous periarticular inflammation; the spleen is always hyperplastic. By differential diagnoses are to be separated: articular rheumatism, typhus, influenza and septic infection.—(*Deutsche Med. Wochenschr.*)

FRENCH REVIEW.

By Prof. A. LIAUTARD, M. D., V. M.

PROBABLE TRANSMISSIONS OF THE "SARCOPTES MINOR" OF CATS TO BOVINES [*E. Chapellier*].—Unfortunately the microscopic examinations were delayed and positive evidence could not be established, but the nature of the cases and their history point to a most probable transmission. A farmer had a pet cat which was affected with some itching skin disease; he scratched terribly and soon his head and body were covered with sores. Supposing that heat might do him good, the owner kept him in a cow-shed. A few days after one cow showed a large surface on the right hip, hairless, with irregular borders. A little later more occurred on the back, head, etc. The itching was not very great, small papules forming, surrounded by inflammation all round and then covered with small scabs. A second cow was soon presenting similar signs of skin trouble. The cat had laid on her back a few days before. And then a third cow showed the same trouble. The cat was then destroyed. Examination of portions of its skin revealed the presence of the *sarcoptes minor*. But unfortunately no colonies of the parasites could be found in the cutaneous products and secretions of the cows, as the disease was already on the road to recovery.—(*Rec. de Med. Vet.*)

TUBERCULOUS PERICARDITIS IN DOGS [*Prof. G. Petit*].—*Pericarditis* is very common in dogs. Almost always it is tuber-

culous in nature. Sometimes it exists along with pulmonary and pleuritic lesions, at others it is primitive and exclusive. During the year 1900, out of 32 cases of tuberculosis, the author has found 15 cases of pericarditis, and taking these figures into consideration, he has found the following records, viz: 6 cases of *serous* tuberculous pericarditis, 6 cases of *hæmorrhagic*, 3 of *symphysar*, 0 of suppurative. These varieties are differentiated at post-mortem by the following lesions: The *serous* by the presence of tubercles spread on both layers of the pericardium and sometimes in irregular masses, sarcomatous in aspect, situated principally at the base of the heart. The cavity of the pericardium contains fluid in small quantity, similar to the normal exudation. The *hæmorrhagic* has fluid looking more like blood in nature. As much as three litres has often been found. After emptying the cavity, the serous membrane is found covered with anastomotic vegetations spreading over the surface of the heart. The lesions are of sub-acute nature. In the *symphysar* pericarditis the characters of chronicity are found. Cardiac symphysis is *incomplete* when there is adhesions, fibrous bands, dividing the cavity into sections; or, again, it is *complete* when the pericardial cavity has entirely disappeared by adhesions of the two layers. The heart is then enveloped with a thick fibrous covering, made of the two layers of the serous membrane thickly adherent to each other.—(*Rec. de Med. Vet.*)

IRREDUCIBLE HERNIA IN A SLUT [*Ducomon*].—A fine five-year-old fox terrier slut has an elastic tumor on the right inguinal region. Although it is irreducible, it is evidently a hernia which demands surgical interference. With all antiseptic precautions and care the animal was operated. An incision made from forwards backwards and a little from outwards inwards exposed the hernial sac, which, on account of the irreducibility of the hernia, was incised. The right horn of the uterus and a portion of the omentum are in the sac. The omentum is removed by resection after ligature. At that time a loop of intestines is found between the uterus and the abdominal opening. The intestines are pushed back, but still the hernia of the uterus cannot be reduced. Hysterectomy is resorted to. The wounds were sewed with antiseptic sutures, covered with iodoform and a dressing of iodoformed collodion. In fifteen days the cicatrix was complete.—(*Rec. de Med. Vet.*)

TETANUS SUPPOSED CONSECUTIVE TO THE ABSORPTION OF TOXINES THROUGH INTESTINAL LESIONS [*M. Remond*].—The etiology of this case is only problematic. A gelding, aged

nine years, presented all the symptoms of acute tetanus, which, notwithstanding severe treatment and large doses of serum, died in 20 hours after the invasion of the disease. At the post-mortem, minute observation of the skin failed to reveal the presence of any lesions; but in the intestines, the doors of entrance of the bacillus of Nicolaier were found in great quantity. They consisted in excessive inflammation of the right sac of the stomach and of the cæcum, with a small ulceration near the pylorus. The mucous membrane of the colon and rectum was covered with large ecchymotic spots with many little reddish pus-holes. Two ulcerations existed also in the rectum. A number of parasites were found in the intestines, at the diaphragmatic curvature, adherent to the mucous membrane, or loose in the alimentary mass. The other organs were healthy. The author thinks that the lesions of the intestines were the places of entrance of the tetanic toxines. The hay, of which the horse had his share, came from a centre where tetanus is, so to speak, endemic.—(*Rec. de Med. Vet.*)

EPISTAXIS IN CARDIAC AFFECTIONS [*G. Desaubey*].—Similar cases have already been recorded by the author and Mr. Jacoulet. A recent case was observed by Mr. D., which is briefly mentioned as follows: A mare, drawing a coupé, is taken with abundant epistaxis. After simple treatment she is brought back to her stable. This epistaxis is the first observed with her. In auscultating the heart the first sound is heard weak and double, the second sound is scarcely perceptible and concealed by a whistling noise, which lasts during the entire diastole. The pulse at the temporal artery is strong, and easily felt. Its bounding character, and the presence of diastolic whistle, justifies a diagnosis of aortic insufficiency. A treatment with base of iodine was prescribed, but the mare was sold and lost sight of. The question which may be asked is whether the thoroughbreds or racing horses, which are often taken with epistaxis, are not also suffering with cardiac lesions due to the violent efforts they are submitted to while in training.—(*Rec. de Med. Vet.*)

CRICOIDECTOMY OR CRICOTOMY [*L. Blanchard*].—The author is an advocate of the operation of cricotomy in cases of laryngeal stenosis; notwithstanding the fact that the effects of this surgical treatment have been almost denied and that it has been affirmed that the opening of the cricoid cartilage could not enlarge the laryngo-tracheal orifice. Lately Mr. B. has performed 15 new operations. The result has been perfect in four,

with improvement in three. One of his colleagues and friends, Mr. Garcin, has with the same operation obtained the following results: Out of 50 operated, 9 were followed with complete success, and, whether race, track, or work horses, were perfectly able to do their duties.—(*Rec. de Med. Vet.*)

TREBLE GESTATION IN A HEIFER [*A. Friez*].—The author records the case of a heifer to which he was called because she was in labor. When he arrived he found the cow somewhat weak, with three calves about her. These were no bigger than an ordinary dog. The mother had delivered without trouble. The case is quite rare, especially with a primapara. The weight of each calf was 35, 33 and 36 pounds. They were in excellent condition and took heartily to the mother. The mother was treated only with tonics and good food.—(*Rec. de Med. Vet.*)

DOUBLE GESTATION IN A MARE [*M. Porchevel*].—These are rare in mares (1 in 1000, says Cornevin). The products are of the same or of different sexes. But they may also be of different species, if the mare has been covered by a stallion and afterwards by a jackass. A draught mare was covered by a stallion and later on the same day by a jackass. At term, she dropped two little fellows, a male mule and a filly. The twins were well formed, grew well and were well sold at the time of being weaned.—(*Journ. de Med. Vet. and Zoötech.*)

ŒSOPHAGISM IN THE CAT [*M. Rabieaux*].—Suddenly a cat cannot swallow solid food; he takes easily the liquid poured in his mouth. An œsophageal probe reaches the cardial orifice, meets with a slight resistance and then enters the stomach. Exploration of the throat and neck gives no positive result. Supposing œsophagism present, faradisation is resorted to. After three minutes of electrization of the neck, the animal succeeds in swallowing a few pieces of meat. After a second seating, the cat takes his food alone and swallows it without trouble. The cure lasted fifteen days. After that lapse of time came nervous pneumonia with titubation, walking in circle, dropping on the floor, contraction of the legs. At the post-mortem was found a sewing needle, four centimeters long, implanted in the walls of the stomach and plunging into the abdominal cavity. The cause of death, however, was purulent meningitis, which had no relation to the stomach trouble.—(*Journ. de Med. Vet. and Zoötech.*)

PERIODIC OPHTHALMIA AND TYPHOID FEVER [*M. Vanney*].—A seven-year-old horse has typhoid fever with gastro-intestinal manifestations. At the same time occur the symptoms of an at-

tack of periodic ophthalmia. The acute troubles subsided after a while, but several months later, a second attack returned with left posterior synechia. This seems to prove that the ocular manifestations of typhoid fever may assume the intermittent march of periodic ophthalmia proper; but, this similarity in the march of the disease does not prove the identity of the cause. There are probably several varieties of internal inflammation of the eye which are manifested by repeated attacks. It would be advantageous to know exactly the intimate cause of each to be able to define better the true domain of periodic ophthalmia, which is rather vague.—(*Jour. de Med. Vet. and Zoötech.*)

ITALIAN REVIEW.

By Prof A. LIAUTARD, M. D., V. M.

A CASE OF ABNORMAL RETENTION OF A FŒTUS [*Dr. Pira Giovanni*].—On the 3d of March, the author was called to attend a cow in labor. The animal was in great pain, making violent efforts. Vaginal examination revealed an os uteri rigidly closed, and to stimulate its dilatation injections of tepid water were prescribed with drenches of hot wine given per mouth. The condition remained about the same for three days, when by degrees the expulsive efforts diminished, became less frequent, and then everything went normal; the cow having gained fat and improved in condition. On July 22d the cow exhibited again similar symptoms and a second vaginal exploration revealed the presence of a calf with the anterior legs passed through the os. The fœtus laid in vertebro-sacral position. Forced extirpation was resorted to and after much difficulty a dead calf, dry and of normal size, was extracted. This proiongation of gestation of nearly four months seemed to have no injurious effect on the general health of the mother.—(*Clinica Veterin.*)

CASTRATION IN BREEDING DISTRICTS [*E. Bastianini*].—After enumerating the numerous methods of castration which have been recommended since Aristotle, Columel, etc., to our days, and giving full credit to the methods by clams, by cauterization, torsion, etc., the author, who practises in a breeding district and has at certain times of the year numerous castrations to perform in one place, has, after many trials, come to the conclusion that the elastic ligature is the one which can be done the quickest, the safest and with most satisfaction. Resorting

to all antiseptic cares of his hands, those of the assistants, and of his instruments (a bistoury, pair of scissors, and threads of hollow elastic ligature), he castrates his patient in the usual way, the animal being cast, and having the scrotum and flat of the thighs thoroughly disinfected with creoline. His patients get over their trouble in eight or twelve days. He has succeeded in castrating 20 colts in less than four hours and 30 in a day. The great advantages obtained are that the colts being wild, unbroken and left loose, do not require attention after the operation and can be left turned out as before.—(*Giornale della R. Soc. Vet.*)

IS THE MALIGNANT CATARRHAL FEVER OF CATTLE CONTAGIOUS? [*Dr. R. Morselli*].—Such is the conclusion of an article published by the author—not contagious to cattle, but to other animals. The answer, according to him, has been denied by some, admitted by others, but so far the question has not yet been well settled. To add to the subject he records the following: He was called to give his attention to a calf, which, presenting all the symptoms of the disease, had been isolated and placed in one stall of a barn where there were a sheep on his left and a young pig on his right. The animals were separated by a wood partition. For symptoms, the calf showed: head heavy, general adynamy, elevation of temperature, 41.5°, loss of appetite, irregular rumination, abundant nasal discharge, eyes partly closed, sunken in the orbits and abundant lachrymation; the aqueous humor was cloudy, respiration difficult, the skin covered here and there with patches of dry crust, under which was viscous dense suppuration. M. instituted a treatment which was followed up for seven or eight days, when at his next visit he found that the sheep and the pig were also affected. The sheep presented his nostrils covered with thick mucosities, striated with blood, both eyes were crying freely; corneæ were opaque, and the temperature raised to 41°. The pig was sicker than the sheep; his temperature was 42°, he had general tremors, the respiration was difficult and accompanied with groans, the eyes were injected, but yet clear. These two animals recovered in a few days; the calf took longer to get well, but remained blind.—(*Giornale della R. Soc. Vet*).

A CASE OF LETHARGY (?) IN A TURKEY [*Dr. G. Maccagni*].—The author records the following: A turkey had since its birth always been well and growing in fine condition, when one day (Nov. 26) he was found missing, not having returned to the roost. He soon was forgotten, after a few sorrows expressed,

for he was such a handsome bird and Christmas so near. A month later, just on Christmas eve, a working hand of the farm went into a dark barn, which was tightly closed, and found the turkey lying on the floor between two fagots of wood. He was alive, but, of course, after his twenty-nine days' fasting, had lost all his corpulency and was nothing but skin and bones. The first few days following he only partook of very little solid food, but ultimately improved and grew fat. But how, during the long time that he was lost, did he keep himself alive? The author believes that poultry in similar circumstances, being in perfect immobilization and in the dark, if left quiet and undisturbed, can vegetate and live from their own tissues and adipose deposits as some other animals do. His opinion is strengthened by another case in which a pair of chickens, tied together by the leg, as when such animals are carried to market, which were placed in a dark room where they were forgotten after it was closed and were not found until after forty-eight days. They were still alive. Those, however, died.—(*Il Nuovo Ercolani.*)

A CASE OF SPRINGHALT CURED WITH ACUPUNCTURE [*Dr. Ugo Viciani*].—Having already obtained several recoveries by this mode of treatment with springhalt, the author decided to resort to it in the case of a four-year-old mare which was suffering much with that trouble, and was almost useless. The animal being secured standing, seventy points of acupuncture needles were inserted on both sides, extending principally over the course of the biceps femoris and the semi-tendinosus. The needles were well disinfected as well as the parts where they were introduced. They were plunged about 4 centim. deep and 4 centimeters apart. After being left in place about four hours, they were removed and a stiff friction made over the muscles with a liniment of liq. ammonia and spirits of turpentine, of each 32 grammes, and camphorated alcohol and tincture of soap, 43. The animal was kept quiet for three days. A friction of alcohol was made now and then when the horse was to return to work, which took place in a very short time, being entirely cured of her infirmity.—(*Il Nuovo Ercolani.*)

ECLAMPSIA IN A COW [*Dr. E. Sbragia*].—This case, which recovered by the administration of a simple purgative and hot applications on the back, is interesting, by the fact that the cow showed the symptoms of her disease only 11 days after parturition.—(*Il Nuovo Ercolani.*)

CORRESPONDENCE.

SOME REMARKS IN RELATION TO PROF. KOCH'S RECENT COMMUNICATION TO THE LONDON CONGRESS.

NEW YORK CITY, Sept. 19, 1901.

Editors American Veterinary Review:

DEAR SIRS:—I have recently read the contribution of the famous Dr. Robert Koch in your columns and delivered before the British Congress on Tuberculosis for the Prevention of Consumption, and pending the report of the Commission, which I understand has been appointed to continue the investigation of the question, permit me to offer a few suggestions which may, perhaps, serve as some food for thought for those who are interested in the transmission of the disease.

In the first place, the distinguished investigator asserts that tuberculosis is sometimes hereditary; if this be true, then in the words of that classical writer, Fraenkel, "the germ theory of the disease is undermined and at once falls to the ground." In my sixth biennial report to the Michigan State Live Stock Sanitary Commission the following will be found: "To revert somewhat briefly to the word hereditary, let me say that it is derived from a Latin noun *heres*, meaning an heir, the genitive case being used and suffix added to make up the word; it then evolves when somewhat liberally translated into the phrase 'pertaining to the heir of.' Gould in his famous dictionary of Biology and Allied Sciences, says it means 'acquired by inheritance' and speaks of it as the transmission of physical or mental qualities or tendencies from parent to offspring, while the same author in quoting Darwin's Theory of Heredity supports the suggestion that each of the cells of the body gives off germinal particles; these when grouped constitute the generative cell, which in its turn is endowed with an inherent power to reproduce itself as well as the peculiarities of the original organism. But the Koch bacillus is an accidental invader of the cell of the animal, and is consequently a foreign body, just as much as a fine splinter of wood would be under certain circumstances, and has nothing whatever to do with the original constitution of that cell; therefore tuberculosis cannot be an hereditary disease—the disease, however, sometimes seems to be *congenital*, which according to the Etymological Dictionary by the Rev. W. W. Skeat, professor of Anglo-Saxon, in the University of Cambridge, England, is derived from a Latin word, *congenitus*, meaning *born with.*"

During the period that I was identified with the Biological

Department of Parke, Davis & Co., Detroit, Mich., I was requested to test the efficiency of certain samples of tuberculin. In carryiug out the test a yearling heifer in good condition was selected, and to insure accuracy it was tuberculin tested, but did not react.

In the course of a few days I was given some human sputum, which I was informed was very rich in the germs of tuberculosis, and that it had been obtained from a virulent case in a man. I placed about a teaspoonful of this material beneath the skin of the heifer, just behind the shoulder blade, put the animal into comfortable quarters and awaited results. In the course of two or three weeks the animal began to fail and the appetite became capricious; in about six weeks I concluded it was a genuine case of tuberculosis, and that it would be a good time to test the efficiency of the tuberculin; the test was accordingly applied and the animal reacted in a most marked manner, indicating tuberculosis. A post-mortem was then held, but the general tuberculosis of the mesenteric glands and lungs which I expected to find was not present. I did, however, find a lymphatic gland in proximity to the point of inoculation which presented every appearance of tuberculosis, and microscopic examination verified the diagnosis first made. Having apparently produced tuberculosis in the animal which afterwards responded to the test, and thus established the efficiency of the sample of tuberculin, I seemed to have accomplished my test. The only difference which I can see between this experiment and some of those conducted by Prof. Koch, was that the sputum which I used had been examined microscopically before injection and the animal was tuberculin tested before the autopsy was made.

With regard to some of the other experiments of Prof. Koch in testing the virulence of human and bovine tuberculosis they do not seem to be parallel. To wit: In the effort to transmit human tuberculosis to the bovine, in some cases sputum was used which must have been contaminated; in others artificial cultures were used, which may or may not have been attenuated, while in transmitting tuberculosis from bovine to bovine the lung substance of a tubercular animal was used. In any work that I have conducted in this line the most pronounced effects have always been produced when the lung substance of a recently killed tubercular animal has been used for injection or feeding purposes.

Considering all that has been done in the past by way of

preventing the spread of this insidious plague, with seemingly good effect, it seems to your correspondent premature—yes, unwise—to tear down those barriers which have been so carefully placed around dairy products, simply because—what—some slight circumstantial evidence has suggested that the disease is not communicable from the bovine to man. We, however, applaud with both hands the sentiments of the renowned and great investigator, Dr. Koch, when he says: "It seems to me very desirable, however, that these experiments should be repeated elsewhere, in order that all doubt as to the correctness of my assertion may be removed."

It has been with much diffidence that I have expressed any doubt as to anything emanating from such high authority, but a keen interest in the question has goaded me to ventilate my feelings.

Trusting that those who are in a position to do so may investigate with vigor, I am, yours respectfully,

E. A. A. GRANGE,
Formerly Prof. Vet'y Science Mich. Agrl. College.

SOME DISEASES OF DOMESTIC ANIMALS IN THE PHILIPPINE ISLANDS.

BATANGAS, PROV. OF BATANGAS, P. I., July 16th, 1901.

Editors American Veterinary Review:

DEAR SIRS:—Some time since I sent a communication to you for the REVIEW relative to the prevalence of "verminous opthalmitis" among the troop horses in this part of the islands. In one case that I mentioned the muscles on one side of the vertebræ in the dorsal and lumbar regions wasted away until there appeared to be nothing only skin and bones left; there was also marked weakness in that region, although sensation was apparently unimpaired.

In another case of the same kind, where the parasite was very lively and apparent for some days, it disappeared after the horse was cast for operation and was never noticed again.

At that time I thought both occurrences of rather uncommon nature, but find on looking over Neuman's work on parasites that the weakness of the loins is of common occurrence in verminous opthalmitis, and is called *Kumree* or *Ah-drung* by the natives of India. Neuman also mentions that this particular condition has never been seen elsewhere than in India. I wish to state that two well-marked cases of Kumree have come under my observation here, and it is probably not an uncom-

mon phenomena in these islands. The actual cause of the weakness and wasting of the back muscles is not yet accounted for; it may be due to the presence of other filaria setting up an irritation of the nerves supplying the muscles, by pressure of the worms or blood clot, etc.

Neuman also mentions that sometimes the parasite dies and becomes absorbed. Perhaps that is what occurred in the second case that I have mentioned. In most cases that have been operated on in this regiment the incision has been made in the lower portion of the cornea instead of the upper, as is advised in some text-books, and we have had but very few unsatisfactory results, the wound healing in a few days and vision being completely restored. If the filaria papillosa is not removed or die the animal affected invariably loses vision of eye containing the parasite. I have on hand at the present time a number of mules suffering from bursatte; if of interest to you will report same at later date. Respectfully,

COLEMAN NOCKOLDS,
1st Class Vet. 1st Cavalry,

[We regret that the communication referred to above did not reach the REVIEW.—EDITOR.]

PROMOTIONS IN THE BUREAU OF ANIMAL INDUSTRY

FROM DECEMBER 1, 1900, TO JULY 31, 1901.

Dr. M. O. Anderson, South St. Paul, Minn., from $1200 to $1400 and placed in charge of station at Austin, Minn.

Dr. Don C. Ayer, in charge South Omaha, Nebraska, from $1600 to $1800.

Dr. Levi P. Beechy, South Omaha, Nebraska, from $1200 to $1400.

Dr. R. J. Blanche, Kansas City, Kan., from $1200 to $1400, and transferred to South St. Joseph, Mo.

Dr. Geo. A. Bond, South St. Joseph, Mo., from $1200 to $1400.

Dr. James J. Brougham, in charge National Stock Yards, Ill., from $1600 to $1800.

Dr. John S. Buckley, Washington, D. C., from $1200 to $1400.

Dr. Herman Busman, Chicago, Ill., from $1200 to $1400.

Dr. George W. Butler, placed in charge Eau Claire, Wis.

Dr. Chas. H. Canfield, Kansas City, Kan., from $1200 to $1400.

Dr. Thomas W. Carnachan, Kansas City, Kan., from $1200 to $1400.

Dr. Herbert B. Chaney, Kansas City, Kan., from $1200 to $1400.

Dr. Dean G. Cooper, South Omaha, Nebraska, from $1200 to $1400.

Dr. Robert Darling, Indianapolis, Ind., from $1200 to $1400 and placed in charge San Diego, Cal.

Dr. Frederick T. Dolan, Knoxville, Tenn., from $1200 to $1400.

Dr. Frank C. Eells, Salt Lake City, from $1200 to $1400.

Dr. John William Fink, Washington, D. C., from $1200 to $1400.

Dr. Harrison H. George, Kansas City, Kan., from $1200 to $1400.

Dr. Robert H. Harrison, Milwaukee, Wis., from $1200 to $1400.

Dr. Samuel G. Hendren, New York, N. Y., from $1200 to $1400.

Dr. James G. Hope, Chicago, Ill., from $1200 to $1400.

Dr. Ulysses G. Houck, Chicago, from $1400 to $1600.

Dr. Walter E. Howe, Denver, Colo., from $1200 to $1400.

Dr. Benjamin Howes, Island Pond, Vt., from $1200 to $1400, and tranferred to Pittsburg, Pa.

Dr. Julius Huelsen, in charge Jersey City, N. J., from $1400 to $1600.

Dr. J. Otis Jacobs, Salt Lake City, from $1200 to $1400.
Dr. George Jobson, Chicago, Ill., " " " "
Dr. John V. Laddey, New York, N. Y., " " " "
Dr. W. B. Lincoln, Nashville, Tenn., " " " "
Dr. George A. Lytle, Chicago, Ill., " " " "
Dr. Alfred F. Martins, Boston, Mass., " " " "
Dr. Chester Miller, St. Louis, Mo., " " " "

Dr. J. C. Milnes, in charge, Wichita, Kan., from $1400 to $1600.

Dr. Patrick H. Mullowney, Boston, Mass., from $1200 to $1400.

Dr. Michael T. Naughton, Chicago, Ill., from $1200 to $1400.

Dr. Albert J. Payne, in charge Cincinnati, Ohio, from $1400 to $1600.

Dr. Thomas L. Rice, Cincinnati, Ohio, from $1200 to $1400.
Dr. Albert E. Rishel, Chicago, Ill., " " " "
Dr. Willard A. Savage, " " " " " "

Dr. Chas. A. Schaufler, in charge Philadelphia, Pa., from $1600 to $1800.

Dr. E. C. Schroeder, Bethesda, Md., from $1800 to $2000.

Dr. William H. Smith, Jr., Chicago, Ill., from $1200 to $1400.

Dr. N. C. Sorensen, in charge Indianapolis, Ind., from $1400 to $1600.

Dr. R. P. Steddom, in charge Knoxville, Tenn., from $1400 to $1600.

Dr. Harry O. Thompson, Boston, Mass., from $1200 to $1400.

Dr. William Thompson, in charge Sioux City, Iowa, from $1400 to $1600.

Dr. Richard W. Tuck, Indianapolis, Ind., from $1200 to $1400.

Dr. Henry J. Washburn, Washington, D. C., from $1200 to $1400.

Dr. John B. Wright, South St. Joseph, from $1200 to $1400.

SOCIETY MEETINGS.

AMERICAN VETERINARY MEDICAL ASSOCIATION.

The thirty-eighth annual meeting of the National Association was called to order at the Hotel Rudolf, Atlantic City, N. J., on Tuesday, September 3, 1901, at 10 A. M., by President Tait Butler, the spacious assembly hall being well filled with members, visitors and ladies. The President formally declared the convention in session and introduced Hon. Franklin P. Stoy, Mayor of Atlantic City, who delivered a most cordial address of welcome, explaining the points of most interest and the government of the unique seaside resort, closing by extending the freedom of the city to his veterinary guests. Dr. D. E. Salmon, of Washington, responded in his usual happy style, giving an outline of the importance of the convention work which was about being undertaken, its scope and character.

After the formalities of the opening exercises Dr. Butler delivered the following

ANNUAL PRESIDENTIAL ADDRESS.

You have just had striking examples of the tendency to comment on the marked progress made by the veterinary profession in recent years. In a general way we have all appreciated this progress, but it is doubtful if any one here has fully

grasped its scope and magnitude during even the last ten years. We have been so engrossed with the struggle to keep in touch with modern opinions and practice that we have had little time for retrospective contemplation.

We are also referred to as a young profession, which, when applied to the profession in America, is especially true. Even so young a man as your President has, during his short life in the profession, seen every existing veterinary college in the United States, with perhaps one exception, organized and developed to their present high state of efficiency. Our great National veterinary department, the Bureau of Animal Industry, which has solved more difficult problems and done more for the live stock interests of this country than was ever done by any other similar institution in any country, came into existence about the time the speaker entered the profession. Whatever the veterinary profession in America is to-day has been the work of the last quarter of the nineteenth century. Not only is the profession, with its powerful and far-reaching influences for the good of the public health and wealth, a stalwart youth, but it is also largely the product of the efforts of youthful men. I look before me in vain to find more than an occasional head sprinkled with gray to denote long years of service in the cause. Perhaps no similar scientific association ever convened in such large numbers with so young and vigorous a *personnel.*

It is not my purpose to in any sense attempt a description of the matchless progress of the veterinary profession during the closing years of the last century. Such a task would be much more pleasant than the one I have essayed, but I see a duty in another direction. Permit me to say, however, that this progress has not always been direct and conservative, but sometimes, at least, rather meteoric and brilliantly erratic. Vigorous young manhood has its follies as well as its virility, and not in all cases has the progress of the profession been consistent and symmetrical. However, I am in no sense a pessimist. Indeed, in so far as the future of this association and the veterinary profession is concerned, I am optimistic to a degree, but it has seemed to me proper to point out certain phases of work that have been neglected and modestly criticise where, in my judgment, faults exist that may be corrected. Perhaps in no field of veterinary effort in America have better results been obtained than in veterinary college education. The three-year schools of to-day, with their longer periods for instruction and their laboratories and clinics, graduate men far superior to those

of even fifteen or twenty years ago. Their graduates are better fitted to take proper rank in society, better equipped for serving the State as sanitarians, and better advisers on questions of animal hygiene and live-stock husbandry. They are better teachers of veterinary science, as it is taught in the modern veterinary college; in fact, they are better qualified to perform very many of the duties required of them by existing conditions. They are doubtless better practitioners, judged from a purely scientific standpoint, and from the standpoint of the college professor who is accustomed to judge such matters by the artificial conditions of the college hospital and by the standards of city practice. But are they better qualified to earn their living as veterinary practitioners? I do not believe they are. I am not unaware that this statement is likely to meet with severe criticism, and before attempting to point out what seems to me the causes of this one-sided development of our veterinary education, it may be well to call your attention to two facts which should always be kept in mind when considering the nature and efficiency of veterinary college education. Regardless of the great furore which the colleges are creating over the opportunities for veterinarians as sanitarians, meat and milk inspectors, teachers of veterinary science in agricultural colleges, investigators for agricultural experiment stations, army veterinarians, and in all other similar capacities, it still remains a fact that nine out of every ten graduates must earn their living as general veterinary practitioners, and therefore fitness for general practice is the standard by which the efficiency of college education should be judged.

The other fact which may well be mentioned in this connection is that, however important it may be that the veterinary practitioner should receive the highest possible scientific training, it nevertheless remains a fact that his success in practice depends more upon his ability to properly handle the owner of the patient than upon his ability to handle the patient itself.

It therefore seems to me that the important question which the colleges should ask themselves is, are we each year turning out men better able to earn their living and serve the country as general country practitioners?

I am extremely doubtful if the graduate of to-day is able to give superior service under the conditions which, although undesirable, are nevertheless those which he must meet in ordinary country practice. The tendency of the colleges is to overlook the fact that the majority of veterinarians are not permit-

ted to practice in the city or possess well appointed hospitals. The result is that the conditions under which the undergraduate sees practice done at the colleges are very different from the conditions under which he must do practice if he is to succeed.

In no line of business is there a greater need for developing a high type of that American characteristic of adaptability than in veterinary practice as it exists in this country at the present time. But as matriculate and graduate standards have been raised there has been a greater tendency for those better educated but frequently less familiar with rural conditions, hence less practical to enter the profession. Therefore the greater reason and necessity for more attention to the practical business side of veterinary education. There are too many teachers in our veterinary colleges who never had any experience in general, unaided, independent veterinary practice of any sort, and too many others whose experience has been one-sided, although perhaps extensive.

However, I think I see a more potent cause of the inability of the graduate of the present to adapt himself to the conditions of country practice than any of those yet mentioned. There has sprung up in recent years, especially among the more prominent members of the profession, a blind, unreasoning worship of all things European, especially German; American facts and methods and American investigators and literature fail to command the interest or respect of these great men, but German literature and investigator are followed and worshipped with a blind fatuity which would be ludicrous were it not fraught with serious consequences that imperil the future progress of the profession. There are men who believe that there is culture in understanding the causes of the Trojan war, but none in learning the causes of the (recent) war in China. Just so with a large number of prominent American veterinarians. They appear to think a knowledge of German practice and literature the *sine qua non* of veterinary education and exhibit the greatest contempt for American methods adapted to American conditions and needs. In all they say or do we are constantly reminded of the fact that the Germans do this or that, or that this or that particular practice or method is wrong because the Germans don't do it that way. Many of them do not even read American literature, or if they read it, entirely discredit it, as evidenced by the fact that I read from the pen of one of these that anthrax is rare in this country but common in Europe. My friends, Drs. Dalrymple of Louisiana, and Robert

of Mississippi, and other Southern and Western veterinarians, are probably convinced that anthrax is not particularly rare in this country. Again, an experiment station veterinarian informs his readers that the literature on a certain subject is "mostly foreign." Still, I find not less than a dozen bulletins treating the subject, besides numerous articles in veterinary journals and elsewhere. In all, probably double what he could find in the foreign literature of all languages.

As a seeker after truth and a discoverer of abstract facts, the German certainly has no superior, but he is in no sense the equal of the American in his application of facts to conditions, especially American conditions.

The result is we have numerous translations, but little strictly original literature from this class of men. Of these translations, which have been quite numerous in recent years, to which would you refer the young practitioner for aid in diagnosis or treatment? They are almost without exception absolutely worthless to the American country practitioner. They were written for other readers and apply to other conditions, and business methods. When we have recovered from this mental dyscrasia and applied ourselves to a development of an American Veterinary Science, suitable to the conditions existing in this country, we will see fewer failures in veterinary practice from what is now known as lack of practical "horse sense."

This association has a written code of ethics an observance of which is required from every member. The restraining influence thus obtained has had a splendid effect in elevating the standard of veterinary ethics, not only among our members, but also throughout the whole profession. It is true that in the light of modern ideas concerning the rights of the individual and more liberal views of business enterprise, some sections of our code may seem somewhat antiquated and contracted, but it had served a good purpose and this association should now require the same high standard of moral and business integrity which it has enforced in matters strictly professional. It is needful that we look more carefully into the moral character and business standing of our applicants for membership. The strength of our organization is as much dependent upon the high moral and business integrity of our members as upon their professional and scientific attainments.

I have thus spoken of veterinary ethics in a general way, but I wish to particularly call your attention to a violation of our code, in spirit at least, by some of our veterinary colleges. This

is a matter that can only be corrected by the action of this association and I recommend that it receive careful consideration at this meeting. I refer to the practice of certain veterinary colleges in illustrating their catalogues and advertising publications in a manner that would not be tolerated for an instant if done by the individual member. The college which uses illustrations in its advertising literature for any other purpose than to show the extent and variety of its buildings and equipment has descended to the level of the practitioner who uses illuminated stationery and flaming posters. In fact, such exhibitions of bad taste are much worse on the part of the college than in the individual, for the college should be the model for its graduates. What alma mater does the alumni are not likely to think wholly bad; therefore, it would not be strange if the graduates of such schools held rather cheaply that section of our code which forbids such practice. I have here a few samples of this sort of cheap, undignified and unprofessional advertising to which I invite your attention.

We have all heard with regret of the failure of the profession in its efforts to secure proper recognition for the army veterinarian and to give to the army a veterinary service commensurate with the importance of the interests involved; but this partial failure must not cause us to relax our efforts. Your committee, although in a measure unsuccessful, has done valiant service and manufactured much public sentiment in behalf of our cause, for which it deserves the sincere thanks of the association, and I feel certain we shall all be interested in any plans for future action which it may be pleased to suggest.

There are other fields offering more fruitful harvests which should no longer be neglected. This association should appoint a committee, and through it inaugurate a campaign which should be prosecuted with the utmost vigor, and only cease when every board of health and every sanitary commission in the land has, at least, one competent veterinarian in its membership. I would most respectfully urge the appointment of such a committee.

Each succeeding year marks a distinct advance in the magnitude of the association's influence and usefulness. Our field of labor is becoming more comprehensive, comprising more diverse and special interests. From sessions lasting one day we have reached the limit in this meeting of a program covering four full days. Four days, with the time required to go to and from the meeting, consumes the entire week, and one week is

all the business veterinarian is willing to give to such a meeting. We have, therefore, reached the limit of the time at our disposal, but have we reached the limit of the requirements? The history of the last three years makes it appear quite certain that we have not.

This is the age of specialization, and veterinary science offers no exception to the rule. No man is any longer able to cover the whole field of veterinary work. It matters not whether we recognize and admit or not, the fact remains that the time has come when the veterinarian must begin to specialize if he is to attain prominence. What applies to the veterinarian, also applies to this association. We have accomplished the basis work which must always precede successful specialization, and the time is near at hand when we must be prepared to so change the machinery of the organization to meet the requirements of modern ideas and methods. In fact, in my opinion, the time has already arrived when there is a real necessity for a reorganization of our plans of work to meet the needs of the diversity of interests involved. The field being too broad for the grasp of any one mind, and too long for the time at our disposal, we are forced into the organization of special sections for special lines of work. We have for some time been trying to shut our eyes against the fact, but even the blind must see that "section work" has been going on for some time. Last year we had clinics absorbing greater interest from the general practitioner than the scientific literary program. We also have our companion organization of experiment station veterinarians. The natural divisions which have spontaneonsly shown themselves give us a clue to the sort of reorganization demanded. Accordingly it appears to me that three sections working concurrently, one considering questions of interest to the general practitioner and including the clinics, one dealing with sanitary questions, including meat and milk inspection, and general State medicine, and one comprising investigators, experiment station workers, etc. I suggest, therefore, and recommend that a committee be appointed for the purpose of considering the advisability of "section work," and formulating a plan for putting the same into operation, if deemed advisable, and report the same to the next annual meeting of the association. For several years I have thought the necessity for several of our standing committees, as their duties are now defined, was not very apparent. I refer specially to the Committee on Intelligence and Education, and the one on Diseases. The utility of the former is not

obvious, while the latter must have the duties better defined and its efforts concentrated before it can accomplish material good. During my term of office this fact has been brought to my attention quite forcibly by similar ideas suggested by various members. I believe certain members of these committees will have something to say along this line, and I need not discuss the matter further in this connection.

No feature of these annual meetings is more attractive nor more beneficial than the opportunity which they offer for the enjoyment of social intercourse between congenial spirits. The chance acquaintance of long ago has each year grown into a closer and warmer friendship, until at last, on the day preceding the meeting, we watch and long for the old familiar face which we have learned to love in the years gone by. If perchance the expected one fails to appear and we know that he is only temporarily detained but will join us at the next and perhaps many subsequent meetings, the disappointment may be sharp, but the hearty hand-clasp and warm greeting of another dissipates the sadness and cheers the heart, as only the feelings of true friendship can cheer it. But when cruel and relentless death has thrown its dark pall between us and some dear friend, and we gather to miss his genial presence and are reminded that the chief among our friends will never again join us in these councils where his wisdom is so much needed, that we shall never again enjoy that companionship which was so much prized, yea, that the brother we loved is no more forever, we are truly sad and the heartache cannot be soothed. There is a void which can never be filled. Other friendships, perhaps just as warm, may and will be made, but the place left vacant forever remains the same.

During the past year several worthy members of this association have been lost to us through the grim harvester Death. Among these were two who had been especially honored by election to the presidency. The one, ripe in years, largely devoted to the advancement of the profession, few of you here assembled knew personally, but the other, in the fullness of his vigorous manhood and the geniality of his noble presence, was known to all. And in this case it may be truly said that to know was to love. I refer to our late friend and brother Dr. Albert W. Clement. I cannot allow this fitting opportunity to pass without paying my humble tribute to his memory. I shall always fondly cherish the memory of a friendship which was one of the first made among the members of this associa-

tion. No greeting was more cordial, no hand-clasp more hearty, no friendship more true than that which he gave and won in return from all who came to know him well. His scientific mind, his conscientious investigations and his conservative yet fearless exposition of all that was best in progressive modern veterinary science won the highest respect from us all. But it was his genial personality which made him a companion to be enjoyed and loved, and his broad nobility of character that won the affection and held the hearts which now mourn his loss.

THOSE IN ATTENDANCE.

By means of registration cards at the door of the assembly hall, it was found that the following list of attendants were present during the three-days' session :

Members.

Abele, Jr., Francis, 8 Spear St., Quincy, Mass.
Ackerman, E. B., 167 Clymer St., Brooklyn, N. Y.
Anderson, F. E., Findlay, Ohio.
Annon, W. J., Goshen, Ind.
Beckett, Edward C., 547 Albany St., Boston, Mass.
Bell, Roscoe R., Seventh Ave.and Union St., Brooklyn, N. Y.
Berns, George H., 74 Adams St., Brooklyn, N. Y.
Bland, Thos., Waterbury, Conn.
Bray, T. A., El Paso, Texas.
Brenton, S., 85 Fifth St., Detroit, Mich.
Budd, T. Earle, 90 Park St., Orange, N. J.
Burr, Alexander, Old Court House, Boston, Mass.
Butler, Tait, Raleigh, N. C.
Cooley, A. S., 1184 East Madison Ave., Cleveland, Ohio.
Cotton, T. Bent, Mount Vernon, Ohio.
Cunningham, Albert E., 215 Huntington St., Cleveland, Ohio.
Curtice, Cooper, Kingston, R. I.
Dalrymple, W. H., Baton Rouge, La.
DeVine, J. F., Rhinebeck, N. Y.
Dodge, W. H., Leominster, Mass.
Dougherty, William, 1035 Cathedral St., Baltimore, Md.
Ellis, Robert W., 453 West 150th St., New York, N. Y.
Etienne, A. A., St. Hyacinthe, Quebec, Canada.
Eves, H. P., Wilmington, Del.
Farrington, A. M., 1436 Chapin St., Washington, D. C.
Fink, William P., 127 North Indiana Ave., Atlantic City, N. J.
Frothingham, Langdon, 20 Hereford St., Boston, Mass.

Gay, Carl W., Ithaca, N. Y.
Glennon, J. T., 119 Plane St., Newark, N. J.
Goentner, Charles T., Bryn Mawr, Pa.
Green, L. Kenneth, 550 Second Ave., Detroit, Mich.
Groves, John W., Hamilton, Ontario.
Hanson, H. D., 160 Eldridge St., N. Y. City, N. Y.
Harger, S. J. J., 205 North 20th St., Philadelphia, Pa.
Harrison, W. F., Bloomfield, N. J.
Hewett, R. W., West Phila. Stock Yards Hotel, Philadelphia, Pa.
Hendren, Samuel G., 30 Plane St., Newark, N. J.
Heyde, W. F., 1215 South Jefferson Ave., St. Louis, Mo.
Hillock, T. R., Columbus, Ohio.
Hoffmann, F. F., Brookville, Pa.
Hoopes, Herbert, Bynum, Md.
Horner, L. L., Woodstown, N. J.
Hoskins, W. Horace, 3452 Ludlow St., Philadelphia, Pa.
Hughes, Joseph, 2537 State St., Chicago, Ill.
Huidekoper, Rush S., 1504 Sansom St., Philadelphia, Pa.
Jacobs, N., Knoxville, Tenn.
Johnson, G. A., Exchange Bldg., Stock Yards, Sioux City, Iowa.
Kelly, Wm. Henry, 233 Western Ave., Albany, N. Y.
Kesler, G. C., Holley, N. Y.
Kille, W. B., Salem, N. J.
Knowles, M. E., Helena, Mont.
Law, James, Cornell University, Ithaca, N. Y.
Loblein, E. L., New Brunswick, N. J.
Lowe, Wm. Herbert, 180 Ellison St., Paterson, N. J.
Lowe, J. Payne, Passaic, N. J.
Lyford, Chas C., 817 Third Ave., South Minneapolis, Minn.
Lyman, Richard P., Hartford, Conn.
McLellan, F. W., Bridgeport, Conn.
McNeil, J. C., Department of Public Safety, Pittsburg, Pa.
Marshall, C. J., 2004 Pine St., Philadelphia, Pa.
Martenet, Wm. H., 1005 W. North Ave., Baltimore, Md.
Merillat, L. A., 2127 Indiana Ave., Chicago, Ill.
Meyer, J. C., 1111 Walnut St., Cincinnati, Ohio.
Mohler, John R., U. S. Inspector, Washington, D. C.
Moore, R. C., 1404 Holmes St., Kansas City, Mo.
Nesom, G. E., Clemson College, S. C.
Newcomer, E. H., Mount Joy, Penn.
Paige, Jas. B., Amherst, Mass.

Peters, Austin, 35 Congress St., Boston, Mass.
Pierce, Benj. D., Springfield, Mass.
Porter, E. C., New Castle, Pa.
Pope, Jr., Lemuel, Portsmouth, N. H.
Poucher, M. M., Oswego, N. Y.
Ranck, E. M., 422 N. 41st St., Philadelphia, Pa.
Rayner, Jas. B., 135 E. Gay St., West Chester, Pa.
Repp, John J., Ames, Iowa.
Reynolds, M. H.. St. Anthony Park, Minn.
Rhoads, W. L., Lansdowne, Pa.
Ridge, W. H., Trevose, Pa.
Robert, J. C., Agricultural College, Miss.
Robertson, Jas. L., 409 9th Ave., New York City, N. Y.
Rogers, Howard P., 9 Ashford St., Allston, Boston, Mass.
Ruhl, Frederick P., Fairmont, West Virginia.
Ryder, J. E., 1634 Broadway, New York City, N. Y.
Salmon, D. E., Chief of Bureau of Animal Industry, Washington, D. C.
Smith, Thomas E., 309 Barrow St., Jersey City, N. J.
Shepard, E. H., 793 Doan St., Cleveland, Ohio.
Sherwood, T. G., 107 West 37th St., N. Y. City, N. Y.
Stewart, S., 1404 Holmes St., Kansas City, Mo.
Tomlinson, W. J., Williamsport, Pa.
Turner, J. P., 910 O St., Washington, D. C.
Van Es, L., Mobile, Ala.
Vogt, A. G., 119 Plane St., Newark, N. J.
White, Geo. R., 316 N. Front St., Nashville, Tenn.
Winchester, J. F., Lawrence, Mass.
Witte, C. R., New Britain, Conn.

Applicants.

Alaire, G., L'Epiphaine, P. Q.
Barradell, A., Pawling, N. Y.
Brimhall, S. D., 2304 Emerson St., Minneapolis, Minn.
Carter, J. M., 215 South 17th St., Philadelphia, Pa.
Gall, Wm., Matteawan, N. J.
Grogan, Jos. P., 909 Ashland Ave., Baltimore, Md.
Hill, J. G., Jacksonville, Florida.
Jewell, C. H., Dunkirk, N. Y.
Kirby, Bassett, Woodbury, N. J.
Lukes, Harry, Springfield, Mass.
Moore, V. A., Ithaca, N.Y.
Thayer, Stuart, Dunham, Quebec, Can.
Underhill, B. M., Media, Pa.

Visiting Veterinarians.

Ainsworth, C. B., Greensburg, Ind.
Adams, F. L., Jamaica Plain, Mass.
Beatty, James, Bureau of Animal Industry, Philadelphia, Pa.
Bieber, U. S. G., Kutztown, Pa.
Black, H. G., Atlantic City, N. J.
Boyd, Chas. W., 26 S. Diamond St., Allegheny, Pa.
Brenton, A. S. V., 85 Fifth St., Detroit, Mich.
Clayton, Charles E., New York City.
Conard, N. R., 1823 Filbert St., Philadelphia, Pa.
Connor, J. F., Uniontown, Ala.
Crowley, Geo. T., New Britain, Conn.
Everitt, J. M., Hackettstown, N. J.
Gardiner, W. W., Moorestown, N. J.
George, J. O., 6 South 5th St., Camden, N. J.
Hershey, S. E., Keyser, West Virginia.
Hillock, A. J., 204 East Long St., Columbus, Ohio.
Holden, W. C., Delphos, Ohio.
Hurley, L. P., Hopewell, N. J.
Jackson, H. S., Sewickley, Pa.
Jones, J. B., 1811 Atlantic Ave., Atlantic City, N. J.
Keil, Zono S., Perkesie, Pa.
Kirby, Bassett, Woodbury, N. J.
Kohler, D. R., Boyertown, Pa.
Land, L. N., Lexington, Ky.
Ludy, J. H., St. Albans, Vt.
Lushington, A. N., Lynchburg, Va.
McCully, R. W., 160 East 24th St., New York City, N. Y.
McDonnell, A. A., Nolldama, Mass.
McGuire, Geo. F., New Britain, Conn.
Magill, Charles E., Haddonfield, N. J.
MacKellar, Robt. S., Nyack, N. Y.
Mattson, W. H., Camp Ground, Pa.
Mecray, Jas. M., Maple Shade, N. J.
Michener, J. C., Colmar, Pa.
Mullaney, T. F., 1920 Locust St., Kansas City, Mo.
Noack, Otto G., 54 South 6th St., Reading, Pa.
Olcott, C. H., New Britain, Conn.
Olweiler, J. F., Elizabethtown, Pa.
Oyler, J. H., Harrisburg, Pa.
Palmer, H. F., 235 Alexandrine Ave., Detroit, Mich.
Parry, A. E., New York City, N. Y.
Perry, Charles H., 82 Park Ave., Worcester, Mass.

Piatt, D. A., 19 W. Short St., Lexington, Ky.
Rectenwald, N., 89 Washington Ave., Pittsburg, Pa.
Roberts, D., Waukesha, Wis.
Robinson, T. E., Westerly, R. I.
Schneider, F. H., 3512 North 11th St., Philadelphia, Pa.
Schrieber, Albert Fricke, 62d and Elmwood Ave., West Philadelphia.
Sherrick, F. N., 211 E. Apple St., Connellsville, Pa.
Sheedy, Jas. A., St. Albans, Vt.
Simpson, Chas. P., Somerville, Mass.
Simpson, W. H., Malden, Mass.
Simpson, William, Springfield, Mass.
Smith, W. R., West Brookfield, Mass.
Smith, D. King, Ontario Veterinary College, Toronto, Canada.
Smith, Geo. E., Frostburg, Md.
Stehle, Frederick, Ridge Ave., Philadelphia, Pa.
Thacker, Thomas, Renfrew, Ontario, Canada.
Toomey, R. A., Springfield, Mass.
Tremaine, S. C., Bridgeton, N. J.
Viles, Jesse A., 14 Coral St., Lowell, Mass.
Whitney, F., Oswego, N. Y.
Wray, A. M., Richmond, Ill.

Other Visitors.

Auebach, Charles, 262 N. 13th St., Philadelphia, Pa., representing West Disinfecting Company.
Burton, R. J., representing H. K. Mulford Company, Philadelphia, Pa.
Dye, Hon. Franklin, Secretary State Tuberculosis Commission, Trenton, N. J.
Cotter, Zar, Chicago, Ill.
Crossman, T. H., official stenographer, 1829 Park Row Bldg., New York City, N. Y.
Davison, A. R., representiug E. R. Squibb & Sons, New York City, N. Y.
Eger, Alex., veterinary and medical book publisher, 34 Van Buren St., Chicago, Ill.
Johns, J. E., M. D., Philadelphia, Pa.
McCloskey, A. J., Chestnut Hill, Philadelphia, Pa.
Mantz, Cynes, representing Cretol Chemical Company, Washington, D. C.
Stoy, Hon. Franklin P., Mayor of Atlantic City, Atlantic City, N. J.

Salmon, Hon. Joshua S., Member of Congress, Boonton, N. J.
Toufel, Geo. W., 114 South 10th St., Philadelphia, Pa.
Trumar, James, 4505 Chester Ave., Philadelphia, Pa.

Ladies.

Ackerman, Mrs. E. B., Brooklyn, N. Y.
Ainsworth, Mrs. C. B., Greensburg, Ind.
Anderson, Mrs. F. E., Findlay, Ohio.
Bell, Mrs. M. D., Philadelphia, Pa.
Bell, Mrs. Roscoe R., and children, Brooklyn, N. Y.
Berns, Mrs. Geo. H., Brooklyn, N. Y.
Berns, Miss Nellie, Brooklyn, N. Y.
Bland, Mrs. Thos., Waterbury, Conn.
Bland, Miss Ethel, Waterbury, Conn.
Butler, Mrs. Tait, Raleigh, N. C.
Bray, Mrs. T. A., El Paso, Texas.
Budd, Mrs. T. E., Orange, N. J.
Budd, Miss Helen, Orange, N. J.
Cooley, Mrs. Flora H., Cleveland, Ohio.
Clark, Mrs. C. E., New York City, N. Y.
Crossman, Mrs. T. E., New York City, N. Y.
Eger, Mrs. Alex., Chicago, Ill.
Green, Mrs. L. K., Detroit, Mich.
George, Mrs. J. O., Camden, N. J.
George, Miss, Camden, N. J.
Goentner, Mrs Chas. T., Bryn Mawr, Pa.
Hughes, Mrs. Jos., Chicago, Ill.
Hanson, Mrs. H. D., New York City, N. Y.
Hart, Mrs. Mary J., Atlantic City, N. J.
Hoskins, Mrs. W. Horace, Philadelphia, Pa.
Johnson, Mrs. G. A., Sioux City, Iowa.
Jones, Mrs. J. B., Atlantic City, N. J.
Hillock, Mrs. T. B., Columbus, Ohio.
Kelly, Mrs. Wm. Henry, Albany, N. Y.
Ludy, Mrs. J. H., St. Albans, Vt.
Lowe, Mrs. Wm. Herbert, Paterson, N. J.
Lowe, Mrs. J. Payne, Passaic, N. J.
Marshall, Mrs. C. J., Philadelphia, Pa.
Merillat, Mrs. L. A., Chicago, Ill.
Mohler, Mrs. J. R., Washington, D. C.
Newcomer, Mrs. E. H., Mt. Joy, Pa.
Nesom, Mrs. G. E., Clemson College, S. C.
Piatt, Mrs. D. A., Lexington, Ky.
Rayner, Mrs. J. B., West Chester, Pa.

Ridge, Mrs. W. H., Trevose, Pa.
Ruhl, Mrs. F. P., Fairmont, West Virginia.
Ryder, Mrs. J. E., New York, N. Y.
Ranck, Mrs. E. M., Philadelphia, Pa.
Repp, Mrs. John J., Ames, Iowa.
Runge, Mrs. W., Newark, N. J.
Sheedy, Mrs. Jas. A., St. Albans, Vt.
Simpson, Mrs. C. P., Somerville, Mass.
Stewart, Mrs. S., Kansas City, Mo.
Toomey, Mrs. R. A., Springfield, Mass.
Tremaine, Mrs. S. C., Bridgeton, N. J.
Turner, Mrs. J. P., Washington, D. C.
White, Mrs. Geo. R., Nashville, Tenn.
Wilson, Miss, Chesterville, Pa.

ASSOCIATION BUSINESS.

The recommendations of the Executive Committee at meetings held at 8 o'clock on the previous evening and at 8.30 on the morning of the 3d were then presented by the Secretary and approved by the association.

That the charge of plagiarism presented against Dr. G. B. Blackman be sustained and that he be expelled from the association.

That the resignations of Drs. Albert J. Sheldon, of Boston, Mass., and Fred Braginton, of Bloomfield, Ill., be accepted.

That the applications for reinstatement of Drs. A. Gibson, of Birmingham, Ala., and T. B. Pote, of St. Louis, Mo., be favorably considered.

That the following applications for membership be favorably considered, and they were duly elected to membership in the association :

APPLICATIONS FOR MEMBERSHIP.

J. Gannand, D.V.S. (C. V. C., '91), Minneapolis, Minn. Vouchers, C. C. Lyford and M. H. Reynolds.

W. J. Armour, V.S. (O. V. C., '90), Goshen, Ind. Voucher, J. R. Mitchell.

S. D. Brimhall, V.M.D. (U. P., '89), Minneapolis, Minn. Voucher, J. W. Gould.

D. Clifton Burnett, M.D.V. (M. C. K. V. C., '90), St. Louis, Mo. Vouchers, L. A. Merillat and M. H. McKillip.

J. L. Drexler, D.V.S. (N. Y.-A. V. C., '90), Thibodeau, La. Voucher, W. H. Dalrymple.

Adolph Eichhorn, D.V.S. (N. Y.-A. V. C., '00), Milwaukee, Wis. Vouchers, A. E. Behnke and R. H. Harrison.

Antonio Estrada, V.S. (Madrid, '74), New Orleans, La. Voucher, W. H. Dalrymple.

E. Pegram Flower, D.V.S. (U. S. C. V. S., '99), Baton Rouge, La. Voucher, W. H. Dalrymple.

Wm. Gall, V.S. (N. Y. C. V. S., '94), Mateawan, N. J. Vouchers, J. P. and W. H. Lowe.

R. J. Halliday, D.V.S. (A. V. C., '95), Bayonne, N. J. Vouchers, J. P. and W. H. Lowe.

J. B. Hart, D.V.S. (McGill, '97), Vancouver, B. C. Voucher, Johnson Gibbins.

B. F. Kaupp, D.V.S. (K. C. V. C., '91), Kansas City, Mo. Vouchers, S. L. Hunter and S. Stewart.

W. A. Knight, D.V.S. (C. V. C., '91), Houston, Texas. Vouchers, S. Stewart and R. C. Moore.

Eldon L. Loblein (A. V. C., '84), New Brunswick, N. J. Vouchers, J. P. and W. H. Lowe.

Harry Lukes, M.R.C.V.S. (R. C. V. S., '87), Springfield, Mass. Vouchers, E. H. Holden and B. D. Pierce.

James McCaffrey, D.V.S. (A. V. C., '85), Red Bank, N. J. Vouchers, J. P. and W. H. Lowe.

Robert W. McCully, V.S. (O. V. C., '90), New York City. Vouchers, J. P. Lowe and J. B. Hopper.

K. J. McKenzie, V.S. (O. V. C., '92), Northfield, Minn. Vouchers, J. W. Gould and M. H. Reynolds.

D. E. Mathews, V.S. (N. Y. C. V. S., '94), Jersey City, N. J. Vouchers, J. P. and W. H. Lowe.

R. F. Meiners, D.V.S. (N. Y.-A. V. C., '01), Rutherford, N. J. Vouchers, W. H. and J. P. Lowe.

V. A. Moore, M.D. (Col. Univ., '90), Ithaca, N. Y. Voucher, James Law.

L. L. Peirce, M.D.V. (Harvard, '98), Arlington, Mass. Voucher, Benj. D. Peirce.

H. W. Read, D.V.S. (U. S. C. V. S., '96), Freehold, N. J. Vouchers, J. P. and W. H. Lowe.

Thomas E. Robinson, V.S. (O. V. C., '92), Westerley, R. I. Voucher, R. P. Lyman.

W. A. Thomas, D.V.M. (I. S. C., '80), Lincoln, Neb. Vouchers, Don C. Ayer and H. L. Ramacciotti.

S. F. Tolmie, V.S. (O. V. C., '91), Victoria, B. C. Voucher, Johnson Gibbins.

L. E. Tuttle, M.D.V. (Harvard, '94), Bernardsville, N. J.

Vouchers, J. P. and W. H. Lowe.

C. B. Ainsworth, D.V.S. (A. V. C., '91), Greensburg, Ind. Voucher, J. R. Mitchell.

Daniel D. Lee, M.D.V. (Harvard), Boston, Mass. Vouchers, H. P. Rogers and E. C. Beckitt.

J. M. Carter, V.M.D. (U. P., '94), Philadelphia, Pa. Vouchers, E. M. Ranck and W. H. Hoskins.

E. W. Newcomer, V.M.D. (U. P., '99), Mount Joy, Pa. Vouchers, E. M. Ranck and W. H. Hoskins.

G. Alarie (Laval Univ., '90), L'Epiphanie, P. Q. Vouchers, A. A. Etienne and J. F. Winchester.

D. A. Piatt (O. V. C., '91), Lexington, Ky. Vouchers, E. C. Porter and Geo. R. White.

Joseph P. Grogan, D.V.M. (U. P., '94), Baltimore, Md. Vouchers, S. G. Hernden and Tait Butler.

C. W. Eddy, (Ohio Univ., Vet. Dpt., 1900), Cleveland, Ohio. Vouchers, A. E. Cunningham and E. H. Shepard.

A. Barradell, V.S. (O. V. C., '94), Pawling, N. Y. Vouchers, W. F. Heyde and Roscoe R. Bell.

Louis Friedham, V.S. (O. V. C., '94), Rock Hill, S. C. Voucher, G. E. Neson.

Stuart W. Thayer, D.V.S. (McGill, '93), Dunham, P. Q. Vouchers, E. C. Beckitt and C. C. Lyford.

D. King Smith, V.S., M.D. (Toronto Medical College, '97, O. V. C., '96), Toronto, Can. Vouchers, W. H. Dalrymple and T. Bent Cotton.

C. Rowland Simpson, D.V.S. (McGill, '87), Somerville, Mass. Vouchers, J. B. Paige and E. C. Beckitt.

U. S. G. Bieber, D.V.S. (A. V. C., '91), Kutztown, Pa. Vouchers, W. H. Hoskins and W. H. Ridge.

C. H. Jewell, D.V.M. (N. Y. S. V. C., '00), Dunkirk, N. Y.

REPORTS OF COMMITTEES.

The Committee on Diseases, through substituted chairman Langdon Frothingham, made a statement that it was impossible to submit an intelligent report upon so vast a subject, and thought the Committee's powers should be defined or its functions suspended. The subject was discussed by Drs. Salmon, Hoskins, Robert and Bell, and the association voted that the Committee should secure data, etc., concerning one prevalent disease each year. By concentrating all of its energy in one direction a report of value could be produced.

The report of the Committee on Army Legislation was read by Chairman Salmon, who gave a history of the triumphant progress of the bill through the two houses of Congress until it passed for revision in the Senate, where it met its overwhelming defeat. His report was very vigorous, especially where he referred to the intervention of Dr. Morris, whom he denounced amidst applause. Dr. Huidekoper, an active member and secretary of the Committee, elaborated upon the report, and both gentlemen urged continuance of the efforts of the association, which later was made practical by an appropriation of $250 for the use of the Committee.

The Resolutions Committee presented a lengthy set of resolutions, many of which produced very animated and prolonged discussion. That referring to the subject of tuberculosis occupied several hours, it being taken up by sections and very carefully considered. Certain sections were thought to be too conciliatory to the new Koch theory, and they were considerably modified before being acted upon. When finally passed they were hypothetical, the real conclusions being dependent upon the amount of credence placed upon the statements recently made by the German investigator. Entering into this discussion were Drs. Salmon, Peters, Law, Curtice, Knowles, Burr, Loblein, and Reynolds.

The sensation of the Convention occurred when the resolution to suspend the by-laws for the purpose of expelling Dr. Claude D. Morris from the association for his part in the defeat of the Army Corps Bill in the Senate last winter came up for action. The by-laws were suspended by a two-thirds vote with many vigorous shouts, but when the motion to expel was placed before the Convention for discussion, there was much opposition shown. Many there were who thought that such punishment should be inflicted upon the doctor, but they were disposed to give him the opportunity of self-defense; it seemed un-American, undignified, and unfair to thus summarily dismiss the accused without giving him an opportunity to appear and defend himself against the charges. There was great clamoring for his scalp from the Pennsylvania contingent, but calmer counsel asked that the question be placed before the Executive Committee and the accused notified to appear at the next meeting to show cause why he should not be expelled. And those taking this stand constantly grew more numerous. Dr. Bell called the action of the extremists "lynch law"; Dr. Law felt that he could hardly continue his membership in an association

which should be guilty of such an unjust act; Dr. Reynolds spoke in the same strain; Dr. Berns paid a glowing tribute to the earnest work done by Dr. Morris in building up the profession of New York State, where he had been a bulwark of strength to the State association, and was largely instrumental in obtaining the protective laws now on the statute books, while he could be always relied upon to fight the attacks which are annually made upon these laws at each session of the legislature. He acknowledged that the accused may have erred in his judgment, but he believed that he did so with honest intent, and for what he conceived to be the best interests of the profession. Many others spoke in a similar strain, but the pursuit of the accused man's scalp was so hot that his hirsute was taken amidst great applause by a narrow margin, the vote standing 36 for expulsion, 30 against.

The resolution to assist in placing veterinarians upon State and local boards of health and live stock commissions through educating the public to the importance of the subject and the special qualification of the veterinarian for such work was very earnestly discussed by Drs. Hoskins, Turner, Salmon, Stewart, Laddey, Budd, Rhoads, and Huidekoper. The Committee created to press this subject was given $100 for expenses.

The discussion drifted off upon the recent outbreak of influenza, which was so prevalent in the East during June and July, with special reference to the use of serums, and was entered into by Drs. Berns, Bell, Ranck, Lyman, Loblein, Ruhl, Dalrymple, and Kelly.

The resolutions adopted are as follows:

RESOLUTIONS ADOPTED.

Tuberculosis.

Resolved, That the interest now manifested by the general public in the subject of bovine tuberculosis is fully justified by the prevalence of the disease, and the tendency to rapid increase among cattle and extension to swine which it has shown during recent years.

Resolved, That the evidence of accidental inoculations and clinical observation apparently demonstrate that bovine tuberculosis may be communicated to man, and that in the opinion of this association the British Congress did well in finding that "medical officers of health should continue to use all the powers at their disposal, and relax no efforts to prevent the spread of tuberculosis by milk and meat."

Resolved, That experiments showing the difficulty or the impossibility of transmitting human tuberculosis to cattle in a fatal form, cannot be accepted as evidence that the bovine bacillus, which is far more virulent and fatal for many animals, cannot infect man. On the contrary, the greater disease producing power of the bovine bacillus would appear to make it more dangerous for human beings as well as for lower animals.

Resolved, That if it is admitted that human tuberculosis is not communicable to cattle under ordinary conditions, this should be a great encouragement for the eradication of bovine tuberculosis, since it would prove that the danger so often feared, that cattle if freed from the disease would be immediately reinfected from mankind, does not exist in fact, and need not be considered.

Resolved. That even if it were true that bovine tuberculosis is not communicable to man, it would nevertheless be to the interest of cattle and swine growers to have the disease eradicated as an economic measure; and such eradication would also be to the interest of the public, since it would have great effect as a means of preserving the food supply of the nation, and of protecting consumers from the unwholesome products of diseased animals.

Claude D. Morris.

WHEREAS, Dr. Claude D. Morris, a member of this association, wrote a letter to the Secretary of War against the passage of the Army Veterinary Bill, which was widely quoted, at the time it was written, in the press of the country, and

WHEREAS, It misrepresented the views of nearly all the members of our profession and may have produced harmful results, which may even have an effect in the future, if this association does not take a strong stand against such behavior; be it

Resolved, That this Committee recommend the immediate expulsion of Dr. Claude D. Morris from this association; and be it further

Resolved, That the by-laws of this association are hereby suspended in order that the said Dr. Claude D. Morris can be immediately expelled, and that he is hereby expelled from membership in this association; and be it further

Resolved, That a copy of these resolutions be hereby entered on the records of this association.

Thanking Dr. Reynolds.

WHEREAS, Dr. M. H. Reynolds has taken much pains and

trouble to bring a very interesting display of photographs of pathological specimens, an example that others might emulate another year; therefore be it

Resolved, That this association thank him for the interesting exhibition he has made.

Thanking the Committee of Arrangements.

WHEREAS, the excellent work done by the local committee of arrangements, the cordial reception of the chief magistrate of the city, the courtesies of the Atlantic City press, and the intense interest of the members of the Veterinary Medical Association of New Jersey, have all contributed much to the pleasure and profit of our meeting; therefore be it

Resolved, that this association tender their sincere thanks and express their appreciation of the courtesies extended us, and trust that our meeting in this city may contribute much to the welfare and advancement of the profession.

On the Death of Members.

WHEREAS, It has pleased Almighty God to remove, during the past year, J. L. THAYER, M. D., of Newton, Massachusetts, an honorary member of this association, son of Dr. E. F. Thayer, President of the United States Veterinary Medical Association, 1869-1871; therefore be it

Resolved, That this association regrets his loss, and extends its sympathy to his family in their bereavement; and be it further

Resolved, That these resolutions be entered upon the record of this association and a copy be sent to his family.

WHEREAS, It has pleased Almighty God to remove, during the past year, Prof. WILLIAM WILLIAMS, of Edinburgh, Scotland, an honorary member of this association, Principal of the New Veterinary College at Edinburgh, and author of text-books, who was honored by the profession as an educator and writer; therefore be it

Resolved, That this association regrets his loss, and extends to his family its sympathy in their bereavement; and be it further

Resolved, That these resolutions be entered on the records of this association and a copy be sent to his family.

WHEREAS, It has pleased Almighty God to remove, during the past year, Dr. P. D. COFFEE, of Svenson, Oregon, a member of this association; therefore be it

Resolved, That this association regrets his loss, and extends

its sympathy to his bereaved family; and be it further

Resolved, That these resolutions be entered upon the records of this association, and a copy be sent to his family.

WHEREAS, It has pleased Almighty God to remove from our midst, during the past year, Dr. CHARLES BURDEN of New York City, Secretary of the United States Veterinary Medical Association, 1865-67, and later its Treasurer. One of the early members of this organization, to whom the profession owes so much, we regret to hear of his decease; therefore be it

Resolved, That this association sincerely mourns his loss, and extends to his family its sympathy in their affliction, and be it further

Resolved, That these resolutions be entered on the records of this association, and a copy be sent to his bereaved family.

WHEREAS, It pleased Almighty God to remove during the past year Dr. GEO. FLEMING, of England, an honorary member of this association. A man of marked literary and scientific attainments, he was a living example of what energy, intelligence and perseverance will do for an ambitious young man, rising from forge boy to the position of chief veterinarian of the British army; therefore, be it

Resolved, That this association regrets his decease, and extends to his family its sympathy in their bereavement, and be it further

Resolved, That these resolutions be entered on the records of this association, and a copy be sent to his family.

WHEREAS, It has pleased Almighty God to remove from our midst, during the past year, Dr. A. W. CLEMENT, of Baltimore, Md., President of this association in 1898 and 1899. A man in the prime of life, who apparently had many years of usefulness before him, but who was cut off at the age of forty-four. We deplore his loss to his country, his State, and to this association. Therefore, be it

Resolved, That this association sincerely regrets his decease so early in his useful career, and extends to his widow its sympathy in her affliction, and be it further

Resolved, That these resolutions be entered on the records of this association, and a copy be sent to his widow.

WHEREAS, It has pleased the Almighty God to remove from our midst, during the past year, Dr. J. H. STICKNEY, of Boston, Massachusetts, the first President of the United States Veterinary Medical Association in 1863 and 1864. He saw it grow from the time of its incorporation to its present size and strength and

ever took an active interest in its advancement and the welfare of its members, from the time of his first connection with it until the day of his death, at the ripe age of seventy-five years. It is due to the efforts of him and his associates in the early days of the organization that it has reached its present influence and membership. May we endeavor to do as much for the generation to come. Therefore be it

Resolved, That this association sincerely mourns his loss, and extends to his family its sympathy in their bereavement; and be it further

Resolved, That these resolutions be entered on the records of this association, and a copy be sent to his family.

The Veterinarians' Pharmacopœia.

WHEREAS, There is a necessity for an American Veterinary Pharmacopœia; therefore be it

Resolved, That a committee be appointed, consisting of seven members, for the purpose of compiling a Pharmacopœia of Veterinary Medicine. Be it further

Resolved, That on the completion of said pharmacopœia, it shall be submitted for examination and discussion, and if found satisfactory proper arrangements shall be taken by the association for its publication.

Upon the New Montana Law.

WHEREAS, The State of Montana has during the past year enacted an efficient meat and milk inspection law; and.

WHEREAS, The success of this measure was to a great extent due to the influence of the press of Montana, especially Dr. W. G. Eggelson, editor of the Helena *Independent*, and to the personal efforts of Senator Geo. Stanton, and Representatives W. A. Hedges, J. F. Patterson and Joseph Dixon; therefore be it

Resolved, That this association expresses its appreciation to the above named gentlemen and to the members of the Montana Legislature who supported the bill, and of their efforts in behalf of improved sanitary laws; and be it further

Resolved, that these resolutions be entered upon the records of this association, and that a copy be sent to each of the gentlemen named above.

Sympathy for a Sick Brother.

WHEREAS, Dr. A. Youngberg, of Lake Park, Minnesota, a

member of this association, is confined to his home by a serious illness, be it

Resolved, That this association extends to him the sincere sympathy of its members in his affliction, and their hopes for his speedy recovery; and be it further

Resolved, That these resolutions be entered upon the records of this association, and that a copy be sent to Dr. Youngberg.

Army Veterinary Department.

WHEREAS, The bill providing for the establishment of a suitable Army Veterinary Department, giving its members the rank of commissioned officers, was defeated in the Senate, after having once passed in the Senate and House; be it therefore

Resolved, That this association deplores the defeat of a measure that would have placed the military veterinarian in this country on the same basis as his professional colleague in the armies of the old world, and guaranteed efficient veterinary care for the animals in the United States Army, representing the investment of millions of dollars of the people's money; and be it further

Resolved, That the thanks of this association be extended to our friends in the Congress of the United States, who supported the bill; and be it further

Resolved, That this association continues its endeavors and work until there is an efficient and proper veterinary service in the United States Army.

Resolved, That a copy of these resolutions be entered upon the records of this association.

Veterinarians on Boards of Health.

WHEREAS, The scientific training of graduated veterinarians especially qualified them for the duties of sanitarians and veterinarians to State and Municipal Boards of Health.

WHEREAS, We note with regret the fact that at present proper recognition is not given to the importance of veterinary training in the *personnel* of State Boards of Health, Sanitary Commissions and other united bodies. Therefore, be it

Resolved, That the President of this association is hereby instructed to appoint a committee of five whose duty it shall be to wage a campaign of education, and endeavor to secure proper recognition for the profession in the matter referred to above, and be it further

Resolved, That the sum of $100 is hereby appropriated out of the funds of the association for the use of this committee.

Advertising Colleges.

WHEREAS, This association notes with regret the fact that certain recognized veterinary colleges of America use illustrations in their catalogues and other advertising literature that are undignified and offensive to good taste ; therefore, be it

Resolved, That it is the sense of this association that the college has no greater license in the matter of display advertising than is legitimately enjoyed by the individual, and be it further

Resolved, That the college which uses illustrations in its advertising literature for any other purpose than to show the character of its buildings and equipment is acting in violation of the spirit of our code of ethics.

Thanks for Free Typewriters.

Resolved, That the members of this association express their heartfelt thanks for the kindness shown to them by the editors of the *Journal of Comparative Medicine and Veterinary Archives*, in furnishing free for their use the services of two stenographers and typewriters.

PROPOSED AMENDMENT TO CONSTITUTION.

To amend Art. 11 of Chap. 5, to read as follows: "The Committee on Intelligence and Education shall collect and distribute among the members of this association, on request, literature calculated to develop public interest in veterinary sanitary work and in veterinary legislation, municipal, State and national, as to them seem best and in so far as the fund appropriated will admit, and also to report recent veterinary facts and intelligence.

REPORTS OF STATE SECRETARIES.

The roll of the States was called, many of the Secretaries being absent, but forwarded their reports to Secretary Stewart, who turned them over to the Publication Committee, and they will appear in the "Proceedings." Those having representatives present were Alabama, Dr. Van Es ; Connecticut, Dr. Lyman ; Delaware, Dr. Eves ; Louisiana, Dr. Dalrymple ; New Jersey, Dr. J. P. Lowe ; New York, Dr. Kelly ; Ohio. Dr. Cotton ; Pennsylvania, Dr. Ranck ; Tennessee, Dr. White ; West Virginia, Dr. Ruhl.

REPORT OF SECRETARY STEWART.

During the entire association year culminating in this meeting, the Secretary's office has been one of activity and continuous application to the interests of the association. Earnest ef-

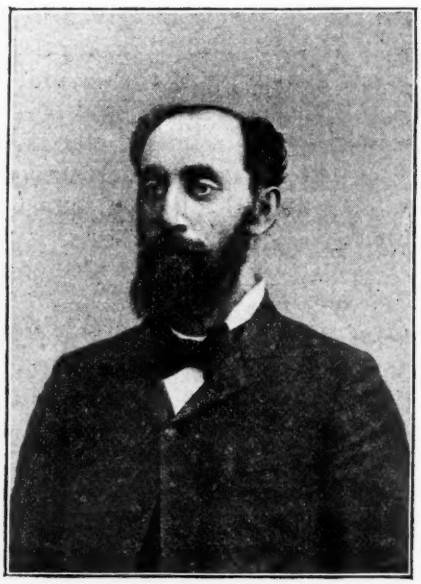
fort has been made to carry out all the instructions given by the association at its meeting held in Detroit, and to promptly conduct the correspondence, giving each member of the several committees appointed official notice of his appointment, and perfecting the membership of the large number of applicants elected at the last meeting. An unusually large number of letters have been sent and received during the year, and throughout most cordial relations have been maintained.

Under direction of President Dr. Tait Butler, letters credential were issued to Prof. A. Liautard and Dr. W. H. Wray, as delegates to the British Congress on Tuberculosis, held in London, July last. Prof. A. Liautard, of Paris, France, and Prof. Dr. Theodore Kitt, of Bavaria, were notified of their election to honorary membership in this association, and letters of acknowledgment of the courtesy duly received and placed on file.

Resident Secretaries have been unusually active during the year, have taken more interest than formerly, which indicates a more wide-spread and general interest in the affairs of our association, and from the large number of applications for membership on file, coming from various parts of the United States and Canada, it is believed that the influence of the A. V. M. A. is recognized as being good and helpful in all parts of the continent. The fact that printed reports of the proceedings of each meeting are promptly placed in the hands of the membership, makes each member to feel that he has received something of value directly from the association.

Several letters have been received from veterinarians relative to the possibility of a change of date of meeting. Several States hold State fairs in the first week in September and the obligations of State veterinarians, and also local veterinarians, are such that they cannot leave the State at this time, and the question is presented as to whether or not this association might not profitably advance the date of meeting to some time in the month of August. I would specifically mention that the States of Iowa and Nebraska hold their annual fairs on the same date fixed for our meetings. The State Veterinarians and Experiment Station men find it impracticable to leave their States on this date. True it is that no date could be fixed upon which would not inconvenience some, but it is doubtless worth the association's while to consider the feasibility of a change of date.

Notwithstanding the large expenditures incurred during the past year, the funds of the association will permit of the prompt



DR. STEWART, Missouri,
Secretary AMERICAN VETERINARY MEDICAL ASSOCIATION.

payment of all bills, including the reporting, publication and distribution of the reports of this meeting.

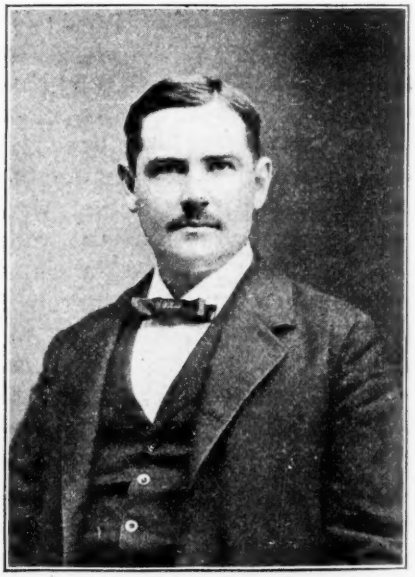
I cannot close this report without expressing my gratitude to the Resident Secretaries and all other officials of the association for their cordial assistance throughout the year; it is by this coöperation that the present grand meeting has been made possible.

Very respectfully submitted,

S. STEWART, *Sec'y.*

ELECTION OF OFFICERS.

Following the Executive Committee report (consisting of applications for membership) on the morning of the second day of the session, Sept. 4, the election of officers took place. Three candidates were placed in nomination for the office of President. Drs. J. F. Winchester, of Massachusetts; Wm. Herbert Lowe, of New Jersey, and Roscoe R. Bell, of New York. The two latter nominees withdrew their names in favor of the "old war-horse," and Dr. Winchester was unanimously elected. It was regularly moved, seconded and carried that the three largest men in the room should be appointed to conduct the new President to the rostrum and request him to make a speech. In obedience to this motion, President Butler appointed Drs. Berns, Hoskins, and Knowles, who



DR. WM. HERBERT LOWE, New Jersey,
Treasurer AMERICAN VETERINARY MEDICAL ASSOCIATION.

performed the function creditably, while the President-elect delivered himself of a very neat little address, full of appreciation of the honor he had received, and of promises of what he hoped to accomplish.

The names of five gentlemen were placed in nomination for the five Vice-Presidencies, and in order to ascertain who should be senior in office each member was requested to vote for but three, with the following result: Roscoe R. Bell, 47; M. E. Knowles, 42; W. H. Dalrymple, 35; C. C. Lyford, 27; Wm. Dougherty, 24.

Secretary Stewart was the only nominee for the position which he has so satisfactorily filled for the past six years, and Treasurer Lowe was returned to his well-filled post. The officers for the ensuing year are therefore as follows:

President—J. F. Winchester, of Massachusetts.
Vice Presidents—Roscoe R. Bell, of New York.
M. E. Knowles, of Montana.
W. H. Dalrymple, of Louisiana.
C. C. Lyford, of Minnesota.
Wm. Dougherty, of Maryland.
Secretary—S. Stewart, of Missouri.
Treasurer—Wm. Herbert Lowe, of New Jersey.

PRESENTATION OF PAPERS.

Possibly the most practically interesting paper presented to the meeting was that of Dr. V. A. Moore, of New York, on "Skin Disinfection and Wound Infection," which went into a subject upon which very little investigation has been made, especially in relation to the action of modern antiseptics. It was well discussed by Drs. Frothingham, Lowe, Beckitt, Knowles, R. G. Moore, Berns, and Curtice. This valuable contribution to our literature will be found elsewhere in this number of the REVIEW.

Dr. George R. White, of Tennessee, brought forth the subject of "Municipal Meat Inspection Legislation, with Special Reference to the Law and the Rules and Regulations of the Board of Health of the City of Nashville," in which he showed the wonderful progress possible where directed by intelligent veterinary advice, backed by determined pluck and persistency.

It has never occurred that the scholarly Dalrymple, of Louisiana, has presented a dull or uninteresting contribution to any programme which his name adorned, but this year he surpassed even himself, and the members were all attention dur-

ing its reading, applauding vigorously when it was concluded. His subject was "Anthrax and Preventive Inoculation in Louisiana," and the discussion which followed was very instructive, and was participated in by Drs. Law, Ranck, Robert, Curtice, Salmon, and others. The REVIEW will present it in an early issue.

Another very valuable paper was upon "Colleges aud Associations as Guards of Our Standing as a Profession," contributed by that earnest veterinarian, L. Van Es, of Alabama. The doctor handled his subject in a clear and practical manner, and its dissemination cannot but be of much benefit to the profession in general.

The discussion of anthrax and tuberculosis having consumed so much of the time allotted for papers, it was decided to hold a night session, and so the lengthy paper, with stereopticon views, by Dr. James B. Paige, of Massachusetts, entitled "Stable Hygiene," was assigned to Wednesday evening, at which time the hall was well filled, and for more than an hour the doctor held his audience while he gave a very practical discussion, especially upon ventilation, illustrating it by numerous views of actual conditions in stables under his observation, showing the direction of currents of air introduced into a stable by all manner of ventilators, located at all points of the room. At its conclusion Dr. Cooper Curtice gave some amusing and interesting remarks.

On Thursday morning two papers on "The Texas Fever Problem in the South" were read by Dr. J. C. Robert, of the Mississippi Agricultural College, and Dr. G. E. Nesom, of Clemson College, S. C., and a long discussion followed. The greatest progress was shown in dealing with this "romance of pathology," and a thorough understanding was shown to exist between the Federal authorities and the intelligent veterinarians now struggling with the scourge in the South. In the discussion the remarks of Dr. Salmon were particularly forcible, showing how the subject had been pursued from a malady of the greatest mystery to a clear knowledge of its etiology and pathology, and, while the disease is existent in other lands, the investigators of our Bureau of Animal Industry were the first to isolate its peculiar germ in the blood and in the tick, and to point out its prophylaxy. Other interesting speakers on the subject were Drs. Van Es, Curtice, Butler, Robert, White, Nesom, Law, and Dalrymple.

Dr. Carl W. Gay, of New York, gave "The Attitude of the

Farmer toward the Tuberculin Test," which attitude had become somewhat perverse by the dishonest practices of some of those entrusted with such duties, a number of instances being shown of certification where no test had been made. This brought forth a vigorous denunciation of such scoundrels by Dr. Salmon, who thought any case proven against such men should be followed by adequate punishment and ostracism by all good veterinarians.

Out of the West came the rising young surgeon, Dr. L. A. Merillat, of Chicago, who placed his estimate upon "The Value of the More Common Surgical Operations of the Horse." The doctor has very decided opinions upon the various procedures enumerated, but found many non-acquiescents when he condemned the use of the actual cautery for the purposes of counter-irritation. However, his paper was well received, and elicited much discussion.

Dr. Lyford's "Radical Operation for Bursal Enlargements" was considered rather too radical, since he advocates the introduction of a seton and the injection of iodine into such diseased structures. He was to have illustrated his methods at the clinic, but could only give a demonstration, since an available subject was not procurable. It was thought that such severe treatment might be possible in the rarefied atmosphere of the Northwest, but that it would be a dangerous operation in the moist climate of the East.

Dr. Langdon Frothingham, of Boston, read a very carefully prepared paper upon "The Diagnosis of Glanders by the Strauss Method," which could not be discussed at any length on account of the hour of adjournment being at hand.

Most of the other papers on the programme were received by the Secretary, read by title and referred to the Publication Committee.

THE SURGICAL CLINIC.

While the arrangements for the clinic were far from ideal, they were a great improvement over any that have preceded it, and gave the operators and spectators equal opportunity to see and be seen. A large tent had been erected in an open space behind the Rudolf; seats were arranged in circus fashion along the sides, while rough stocks and a head-rack were placed at either end, leaving an open arena for casting. The clinic was inaugurated on Thursday afternoon by Dr. J. C. Michener, of Colmar, Pa., who gave a unique and valuable exhibition of manipulations and positions to relieve dystokia in the cow, as well

as to overcome certain accidental conditions frequently met in practice. The doctor kept up a running talk in explanation of the various positions as he proceeded, and all felt that they had learned many practical points from a man who has had great experience and the ingenuity to take advantage of his opportunities.

On Friday morning the clinic began in earnest, and for five hours it was continuous, there being frequently three subjects under the knife at one time.

First came "caudal myotomy," being an exhibition of rapid practical tail-straightening as occurring around the large sale marts, and was neatly performed by Dr. Robt. W. McCully, of New York, who is certainly a past-master with a knife and a tail. Later he performed myotomy for "setting up" the tail by a single introduction of the blade on the median line of the inferior surface of the tail, cutting the muscles subcutaneously on one side, and then turning it to the other, severing both sides before removing the blade.

Following this Dr. C. H. Jewell, of Dunkirk, N. Y., performed ovarectomy upon a mare through the vagina, following the methods described in the REVIEW by Prof. W. L. Williams. The operation was without an error, and the young surgeon received generous applause for his dexterity and close observance of antisepsis.

Dr. C. C. Lyford, of Minneapolis, Minn., gave a demonstration of his "radical operation for bursal enlargements," and very patiently answered the many questions put to him concerning the same. Our readers will find a full description of the technique in the "Proceedings" of the association. The doctor and his Minneapolis colleagues claim much success from the method described, but most Eastern veterinarians with whom we spoke thought the method too bold and too apt to result in danger to the life of the patient.

Following this Dr. S. J. J. Harger gave a demonstration and the operation for spavin by resection of the peroneal and sciatic nerves. While the first section of the operation was quickly through with considerable difficulty was experienced in locating the deep-seated nerve on the outside, the surgical field becoming complicated by profuse hæmorrhage.

While Dr. Harger's more tedious operation was being accomplished, Dr. Jewell performed ovarectomy upon a bitch by the side method, and Dr. Tremaine, of Bridgeton, N. J., did the same through the linea alba.

Dr. R. P. Lyman, of Hartford, Conn., performed vaginal ovariotomy upon a cow, using the same methods as those adopted by Dr. Jewell for the mare.

Dr. L. A. Merillat, of Chicago, demonstrated cunean tenotomy for the relief of spavin on two subjects, each in the standing position,using cocaine and ethyl chloride as local anæsthetics. In the course of his remarks he spoke of the solutions employed by him in general operations—1:500 bichloride solution for disinfecting the skin, another similar solution for the hands, a very weak solution or simply sterile water for baling out the blood, and a 5 per cent. carbolic solution for the instruments, which are previously boiled. The doctor's easy and careful method of operating was much admired.

During Dr. Merillat's work Dr. Lyman demonstrated canine ovariotomy under anæsthesia.

A black gelding very lame from ringbone was cast for the operation of median neurectomy by Dr. Charles E. Clayton, of New York City, and it was completed in eight minutes without a hitch. The animal being allowed to rise, was trotted in the street, free from lameness.

To furnish material for those who could not witness the steps of Dr. Clayton's neurectomy, Dr. Tremaine spayed one bitch, while Dr. Lyman did the same operation on another.

Dr. George H. Berns, of Brooklyn, N. Y., had a subject for tenotomy of the flexors of the hind legs, intending to sever the deep flexor in each, but when this was accomplished he found that the superficial would also have to be cut, and accordingly both flexors of both hind legs were tenotomized, leaving the suspensory ligament as the only support. When allowed to arise the subject walked off with the heels on the ground—the first time for a long while. The doctor explained that he had not often been obliged to do so radical an operation, and was not sure of the result. It will be interesting to note the outcome of this case.

The clinic was brought to a close by the complicated myoneurectomy for the cure of crib-biting, performed by Dr. Harger.

THE BANQUET.

The banquet, spread in the Assembly Hall of the Hotel Rudolf, on Thursday evening, was a great success. Eighty-one covers were tastefully arranged around the beautiful room, and the repast was all that could be wished for. The Rev. David Stuart Hamilton, of Paterson, asked divine blessing on the repast, at the termination of which Toastmaster Huidekoper

called upon Congressman Loudenslager for a response to the toast, "New Jersey in the National Legislature," and he did so in a very pleasing and practical manner, stating that he could read in the faces of the earnest veterinarians about him that what they wanted most was legislation, and he pledged them that if ever in his power he would gladly do what he could in that direction.

Congressman Salmon spoke on "Perils of Veterinary Legislation in Congress," and judging from his remarks he had much to do with the subject at the last session; and his admonition to try again was received with great applause, which said as plainly as words that they meant to do it.

The Rev. Mr. Hamilton was very happy in responding to the sentiment, "The Veterinary Profession in its Relation to the Community," and he won the esteem of all by his kindly and sensible address.

"Veterinary Trusts" called Dr. Wm. Herbert Lowe to his feet, and he championed the cause of veterinary medicine in New Jersey with a pride which could only come to one who has its interests close to his heart. He showed very plainly that he thoroughly appreciated this record-breaking meeting, which could not have been possible save for his untiring zeal and energy. It is true that he had the best of colleagues, who worked in unison with him, but it was Lowe's soul and his enthusiasm which had made the great gathering an accomplished fact. The applause which greeted and followed him was a sure indication that his efforts were thoroughly appreciated.

Never did a son of the "American Veterinary Medical Association" pay a more graceful tribute to her glorious career than did Tait Butler. He warmed to his subject with the fire of an orator, and the hall resounded with applause at his perorations.

But the address of the evening was that by Chief Salmon, of the Bureau of Animal Industry, on "National Sanitary Work," which he treated of in that pleasing manner which has made for him an extreme popularity with veterinary audiences. But he soon left the printed theme, and took up the cause of the veterinarian in the army, and he seemed to throw his whole enthusiastic nature into the subject, making such an argument that the pity is it was extemporaneous, for if reduced to cold type and placed in the hands of the law-makers of the country it would do more to lift the army veterinarian to his proper position than all the lobbying of committees that could be sent

to Washington. We doubt much if he could do it over again, for he seemed to grow more eloquent and convincing as he plunged into his subject. But if he can duplicate his work of that evening he owes it to the profession he loves so well to do it, and we wish he would send the advance sheets to the REVIEW for immediate publication.

"Veterinary Associations" fell to the lot of Dr. Roscoe R. Bell, who dwelt briefly upon the good which they accomplish and the lack of it where they do not exist, or do not thrive. He spoke regretfully of the great opportunities which New York City possessed for having the best association in the land, and deplored the fact that so little interest was manifested in the subject by the profession of the metropolitan district.

Dr. W. Horace Hoskins, who has become a veritable orator since his political proclivities became a realization, was happy in his response to "Veterinary Journalism," which he characterized as one of the greatest factors in scientific progress.

"Southern Advancement" was treated of in the masterly manner which distinguishes all the works of that man who has done so much in that direction, and Dr. Dalrymple gave the guests a good idea of the great work which he and his Southern colleagues are accomplishing.

"Our New President" was personified by J. F. Winchester, and he dropped his characteristic drollery for the dignity of his new office, pledging his best efforts for the success of his administration, which was really unnecessary, since all who know anything of the A. V. M. A. know that in her glory lies the heart of the Massachusetts boy.

The set themes having been exhausted, *impromptu* addresses were delivered by Drs. Stewart, Robertson, Lyman, Smith and others.

At 1 o'clock the lights were extinguished and all departed feeling that a pleasant and profitable evening had been enjoyed.

Letters of regret were received by Dr. Wm. Herbert Lowe, Chairman Committee of Arrangements, from the following prominent citizens of New Jersey: Ex-President Grover Cleveland, Princeton, N. J.; Hon. John W. Griggs, former Attorney-General of the United States, Paterson; State Senator Herbert W. Johnson, Merchantville; Judge J. Franklin Fort, Supreme Court of New Jersey, East Orange; ex-Governor David O. Watkins, Woodbury; United States Senator William J. Sewell, Camden; United States Senator John Kean, Elizabeth; Hon. Franklin Murphy, Newark; Congressman James F. Stewart,

Paterson; Congressman Benj. F. Howell, New Brunswick; Congressman Allen L. McDermott, Jersey City; Congressman Chas. N. Fowler, Elizabeth; Hon. Vivian M. Lewis, Member of the House of Assembly, Paterson; Dr. Henry Mitchel, Secretary of the New Jersey State Board of Health, Trenton; Hon. George Wurts, Secretary of State of New Jersey, Paterson; President Patton, Princeton University, Princeton, and Congressman John J. Gardner, Atlantic City.

NOTES OF A. V. M. A. MEETING.

By far the largest and most glorious meeting ever held by the A. V. M. A. took place at Atlantic City last month.

The extreme points of attendance were Canada, Texas, Montana and Louisiana.

The attendance included 98 members, 64 visiting veterinarians, 53 ladies, 14 applicants, and 14 laymen (besides a number who failed to register).

Dr. W. B. E. Miller, of Camden, N. J., was prevented from attendance by a severe trolley accident, which rendered him temporarily *hors-de-combat.*

One of the members of the local committee of arrangements was so unfortunate as to lose his purse containing $90. Although he advertised to give $25 for its return, evidently the finder could not see the profit in such a calculation.

Dr. Leonard Pearson's pleasant face was greatly missed, he being in Europe on an inspection tour of the colleges, seeking ideas to be utilized in the rebuilding of the Veterinary Department of the University of Pennsylvania.

The news of the attempted assassination of the President of the United States came like a thunderbolt after the Convention had adjourned, and those who still lingered about the corridors of the Rudolf were dazed by the sad intelligence.

An inspection of the Atlantic City Artificial Ice Company's plant, through the courtesy of its President, Dr. W. Horace Hoskins, was very interesting and instructive. It has a capacity of 70 tons per day, and the facilities will be increased to 100 tons by next summer.

Fifty-three ladies—wives, daughters and mothers of members and visitors—added much pleasure to the occasion, and if one might judge by appearances they fully enjoyed every hour of their stay. Not a few brought small children with them to the delightful seaside resort.

Two gentlemen were elected to membership upon their de-

gree of M.D., which was acknowledged by those with whom we conversed as quite a test upon the elasticity of our requirements, particularly as there is no reciprocity on the part of medical associations.

There was no monopoly of the art of photography in Atlantic City, for when the members and visitors were arranged for their pictures no less than four cameras were directed at them, each claiming that he was the only original. As most of the ladies were in the surf at that hour, a separate group of ladies was made later in the afternoon.

The Experiment Station Veterinary Medical Association held a brief meeting, there being very few members present, while the Association of Veterinary Faculties and Examining Boards of North America was not thought of. There seems to be no doubt that the comatose condition in which this body has been for several years has resulted in death.

For a number of years Dr. and Mrs. E. H. Shepard, of Cleveland, Ohio, have been among the pleasant faces at the annual conventions. This year Mrs. Shepard was attacked by auricular abscess while *en route* and was compelled to go to a Philadelphia hospital, while the Doctor made short trips to and from the meeting. Great sympathy was expressed by the membership, as Mrs. Shepard is a general favorite among those who have had the privilege of her acquaintance.

The regret was expressed by all who attended the banquet that a stenographer had not been engaged to reproduce the wonderful address of Dr. Salmon, who made a most convincing argument in favor of an improved army veterinary department. If that speech had been delivered before Congress just prior to the vote taken in the Senate last winter our military brethren would now be in possession of the coveted rank and the country would be enjoying the fruits of an intelligent veterinary service—the Secretary of War, the Military Committee and meddlesome veterinarians to the contrary notwithstanding.

NEW YORK STATE VETERINARY MEDICAL SOCIETY.

The eleventh annual meeting of this society convened in the lecture amphitheatre of the New York State Veterinary College, on the Campus of Cornell University, Ithaca, on Tuesday morning, September 10th, at 11 o'clock, with President Roscoe R. Bell in the Chair. He at once introduced Prof. James Law, director of the college, who bid the guests a hearty welcome to

the city and University, which was responded to in fitting terms by the President of the society. The reading of the minutes and roll-call were dispensed with, but the attendance was ascertained by means of a registration book passed among those in the hall. While many may have failed to register by reason of not being present at the time, the following is a copy of the names appearing upon its pages:

LIST OF THOSE IN ATTENDANCE.

C. H. Jewell, Dunkirk; J. W. Corrigan, Batavia; E. F. Vorhis, Owego; H. D. Stebbins, West Winfield; J. L. Robertson, New York City; C. E. Clayton, New York City; J. A. Genung, Ithaca; A. G. Weeks, Schenectady; H. D. Hanson, New York City; W. J. Hallock, Auburn; Wilson Huff, Rome; F. L. Kilborne, Kellogsville; P. A. Fish, Ithaca; G. C. Kesler, Holley; R. Perkins, Warsaw; J. L. Wilder, Akron; H. S. Wende, Tonawanda; Harry Sutterby, Batavia; S. H. Gage, Ithaca; James Law, Ithaca; Wm. N. D. Bird, Buffalo; T. G. Sherwood, New York City; Benj. D. Pierce, Springfield, Mass.; S. D. Brimhall, Minneapolis, Minn.; E. B. Ackerman, Brooklyn; Roscoe R. Bell, Brooklyn; Alex. Findley, Camden; R. S. Huidekoper, Philadelphia, Pa.; Thomas F. O'Dea, Saugerties; Wm. Henry Kelly, Albany; Joseph Hughes, Chicago; L. A. Merillat, Chicago; A. J. Tuxill, Auburn; A. W. Baker, Oneonto; Wm. Herbert Lowe, Paterson, N. J.; W. N. Babcock, Scott; Samuel Atcheson, Brooklyn; W. H. Phyfe, Delhi; A. W. Baker, Brasher Falls; E. F. Bettinger, Chittenango; W. H. Salisbury, Clifton Springs; E. H. Nodyne, Sodus; W. J. Johnston, Geneva; W. G. Dodds, Canandaigua; T. S. Rich, Avon; J. H. Youngs, Belvidere; J. W. Turner, Lyons; W. B. Switzer, Oswego; E. B. Ingalls, Mohawk; R. W. McCully, New York City; E. M. Casey, Oxford; J. M. Currie, Rome; W. L. Williams, Ithaca; George H. Berns, Brooklyn; S. Brenton, Detroit, Mich.; G. S. Hopkins, Ithaca; J. B. Sheaver, Pittsford; Wm. F. Woolston, Fishers; E. O. Kingsman, Courtland; S. Stewart, Kansas City, Mo.; V. A. Moore, Ithaca; A. H. Ide, Lowville; E. Hanshew, Brooklyn; E. B. Ackerman, Brooklyn; H. D. Gill, New York City; Charles Cowie, Ogdensburg; C. D. Morris, Binghamton; L. R. Webber, Rochester.

THE PRESIDENT'S ADDRESS.

President Roscoe R. Bell then delivered the following annual address:

When as your President I undertook the important function

of preparing an address to be delivered at the opening of our last annual convention, I found that I was compelled to do so in somewhat of an apologetic strain. I had to frame it more in the nature of an appeal, pointing to the great possibilities of a State association, like ours, without having one great meeting to point to as a justification of the faith which was in me. Glancing over it a few days ago, I find that I recounted the various cities in which our meetings were held, but through a sense of chagrin I omitted to say that at some of them there were very few members in attendance, scarcely a new member added to the roll, while at one point I remember the local veterinarians did not even call in at our deliberations, and to all appearances did not care that we were in town. When I say that in that address I took a position of faith in the future rather than pride in the past, I do not wish to speak in a disparaging way or underestimate the great work accomplished by this society, for under adverse conditions it has been stupendous; and we who are present to-day at this large and representative gathering of the veterinarians of the Empire State should feel under everlasting gratitude to the handful of earnest men who struggled to build up the society when their fellow workers in the same field held out but little assistance and encouragement to them. Work as they might, their efforts were rewarded by the presence at each annual meeting of the same few familiar faces, with members gradually growing fewer.

In one short year we have sprung from this state into a great live, enthusiastic association, with a large attendance at our meetings, a deep interest in everything pertaining to its deliberations, and with a long list of applications for membership. Instead of a programme presented with apologies for its meagreness, every minute of our time is engrossed with important papers or instructive surgical clinics, and when the meeting is ended each member records a silent promise to be back the next year, and to bring a fellow-veterinarian with him.

What is the cause of this wonderful change which has taken place? This is a question not hard to answer. We have been so fortunate in securing a Committee of Arrangements who have worked so hard and made the programme so attractive and valuable that something is to be learned at these meetings, some recompense for the time and money spent in attendance, so that a member feels that he cannot afford to stay away; that he will by so doing lose something which he cannot afford to lose. He has here the opportunity to listen to and participate in the dis-

cussion of topics of interest and value to him, to actually see and assist in surgical demonstrations—things which will enable him to be of more service to his clients and to add to his reputation in consequence. Or in the matter of a simple minor operation, which he is frequently called upon to perform in daily practice, he may learn a simpler and a better way to do it. The same man might sit up all night reading the technique of such a procedure and learn less of it than by a five-minute demonstration. In science there is no such thing as a monopoly of knowledge, and we are probably secure against the organization of a veterinary trust. We each know a little; some have gained more knowledge than others through greater adaptability or greater opportunities; some are superior to others upon theoretical points; others excel in practical wisdom, while we have those among us who are equally proficient in both. To one the art of surgery is to his liking, and he sees its benefits in conditions where another would overlook them. The less surgical veterinarian will hesitate to recommend an operation unless its indications are imperative, and then his effort may fail to add anything to his reputation. This is the man who will be most benefited by attendance at association meetings, especially where surgical clinics are a feature. It is my impression, based upon my own judgment and the assurances of many others, that no association ever presented a better clinic than this one did last year, and our worthy Chairman of Arrangements has promised that it will be of as equally a high order this year. We have been especially fortunate in the *personnel* of our workers, in our environments, in the gracious hospitality of our hosts, and in the enthusiasm of our membership; and if the same spirit prevails during the next few years this society must of necessity become the largest and most influential of any State in this union of States. Let us work to that end, earnestly and persistently.

The past year has been one of unprecedented prosperity among veterinary practitioners, for whenever commerce, agriculture and finance are free from depression, the live stock industry must flourish, which incidentally implies that the veterinarian will participate in the common weal. I believe that the past year has been the most prosperous in a veterinary sense of any in its history in this country, but by no means the best that is in store for us, for the field of the veterinarian is constantly enlarging, and the services of the worthy practitioner is being sought along new lines, in channels which were formerly not open to him. The field of canine medicine and surgery

in the cities is constantly developing, many veterinarians finding it the most profitable part of their business. People who keep dogs and other animal pets avail themselves of intelligent veterinary advice now as readily as though the patient were a member of their families. Eczemas and other common ills are now treated in their incipiency with good results, where formerly the veterinarian was sought only when the case was beyond the possibility of recovery, and the indifferent success achieved was charged to the account of ignorance. Now, the early correction of deranged functions permits of better results and greater confidence in the veterinarian. Equine practice will permit of similar remarks. Horses are commanding exceptionally high prices, and their owners are willing to pay fair fees in an effort to save the life of a sick one, or to bring a disabled one back to a condition of usefulness. The cessation of breeding during the 90's renders good horses scarce at this time, and consequently the supply is inadequate to the demand, with values relatively high. It is but natural to look forward to a reaction and a rearrangement of conditions, now that active breeding has been resumed. So that about the year 1906 there will be a full supply, with prices correspondingly lower.

One of the special functions of this society is to secure and maintain legislation safeguarding the live-stock interests and the profession which we represent. An outline of the working of our legislative battery was given you last year, and I can here but add that our methods have worked satisfactorily during the past year. To strengthen our lines you were pleased to instruct your President by resolution to appoint County Secretaries to work in conjunction with the Judiciary Committee, when necessity required; and I beg to report that in obedience to that resolution, Secretaries have been appointed in every county of the State where we have a representative, and it is confidently believed that they can be relied upon at all times to do their full duty when needed to further important legislation, or to combat pernicious attacks upon the laws which have already been secured. I refer you to the report of the Judiciary Committee for details of legislation affecting the profession of the State during the past session, at the same time congratulating you that the figure-head Tuberculosis Committee has been abolished, and the diseases which it was created to look after placed where they rightfully belong, the Department of Agriculture. In this connection, I beg to call your attention to the fact that the Empire State remains without a State veterinarian,

the most notable exception among the great agricultural States of the Union. This society is the proper tribunal for the consideration of the question of how such an office should be created, and to decide if the time and conditions are right for such an effort to be made.

The announcement made by Prof. Robert Koch at the International Tuberculosis Congress of London in July, of his conviction that the bacilli of human and bovine tuberculosis were not identical, and that, therefore, the disease could not be transmitted to the human family by eating the meat or drinking the milk of affected cattle, startled the medical world, as it was a shoulder-strike at the most sacred tenets of accepted scientific conclusions. In all civilized countries the health authorities have vied with each other in a praiseworthy rivalry as to which shall have the most perfect system of inspection to guard the human family from contamination from this source, and while all communicable diseases are sought for, by far the one of most importance and most frequent occurrence is tuberculosis. A majority of the States of this country have laws governing the control of the disease and looking toward its ultimate eradication, with appropriated money to pay for condemned animals, the flesh of which is reduced to the condition of fertilizer. To be told that all this labor and expense which has been brought upon the governments largely through the agitation and persistency of the veterinary profession ; that all the investigations, experimentation, and data which have been indulged in and the conclusions placed in our archives as accepted truths —all pointing to the common origin of the bacillus tuberculosis —was worse than useless, was a blow sufficient to take our breaths. It was a grave assertion to be based solely upon theoretical grounds. The unique position of the distinguished scientist who made this declaration, as the discoverer of the germ of this disease, and therefore an acknowledged authority upon the subject, gave to his utterances great weight, and the respectful attention of the world. Probably the most baneful effect of his communication will be that it places a powerful weapon in the hands of those laymen who have for some time opposed the vested authorities in their efforts to carry out the laws against the spread of the disease, and to block legislation looking to an extension of the system of inspection of animals and their products. But, after all, it will prove a good thing, for medical science will not long rest content until the facts in the case are definitely determined, so far as such a proposition can be.

I trust that the deliberations of this Convention may be of such a character as to greatly increase the usefulness, value, and influence of our society, and that year by year its membership may magnify in proportion to the good we shall do to our country, our science, and ourselves.

BUSINESS OF THE SOCIETY.

Secretary Morris presented his report for the year, which was replete with information concerning the affairs of the society, dealing with legislative and financial matters, particularly calling attention to the large amount of money due by delinquents, and advising either peremptory action by the society or greater vigilance in collecting by the new Secretary.

The Executive Committee presented a report of two meetings held, as follows:

Meeting of the Executive Committee of the New York State Veterinary Medical Society, convened at 10.30 A.M., in Dr. Law's Study.

Roll-call:—Drs. Bell (President), Berns, Williams, Ackerman, and Morris.

President Bell offered a communication signed by Dr. Rush S. Huidekoper, purporting to be charges against Claude D. Morris. Dr. Bell submitted the matter to the committee. Dr. Williams moved that such charges were out of order, and therefore ought not to be received by reason of the fact that Dr. Huidekoper is not a resident of the State, and therefore not a member of the society, under the Constitution. Carried.

Supplementary Meeting of the Executive Committee.

Called to order by Dr. Bell. Present: Berns, Williams, Bell, Ackerman and Morris.

The President presented charges against Secretary Morris, signed by Dr. T. G. Sherwood. Said charges were read in the presence of Dr. Morris, who was asked to withdraw during their discussion.

Dr. Ackerman was elected Secretary *pro tem.*

After consideration of the charges it was moved by Dr. Williams, seconded by Dr. Berns, that we recommend to the society that the incoming Secretary notify Dr. Morris of the charges pending and cite him to appear before the association at the next regular meeting and show cause why the charges should not be sustained. Motion carried. Adjourned. E. B. ACKERMAN, *Secretary pro tem.*

NEW MEMBERS ELECTED.

The Board of Censors reported favorably upon the applications of the following gentlemen, and they were unanimously elected to membership in the society:

A. Barradell (O. V. C., '94), Pawling; vouchers, George H. Berns and Roscoe R. Bell.

J. F. DeVine (A. V. C., '98), Rhinebeck; vouchers, Roscoe R. Bell and H. D. Hanson.

Wm. N. D. Bird (K. C. V. C., '98), Buffalo; vouchers, James Law and Roscoe R. Bell.

Joseph L. Wilder (N. Y. S. V. C., '01), Ithaca; vouchers, James Law and W. L. Williams.

Elishu Hanshew (A. V. C., '80), Brooklyn; vouchers, H. D. Hanson and R. S. Huidekoper.

Charles E. Clayton (A. V. C., '93), New York City; vouchers, Roscoe R. Bell and H. D. Hanson.

G. S. Hopkins (N. Y. S. V. C., '01), Ithaca; vouchers, James Law and W. L. Williams.

J. L. Robertson (A. V. C., '76), New York City; vouchers, H. D. Hanson and James Law.

Robert W. McCully (O. V. C., '90), New York City; vouchers, Roscoe R. Bell and H. D. Hanson.

Alfred James Tuxill (N. Y. C. V. S., '94), Auburn; vouchers, H. D. Gill and T. G. Sherwood.

W. J. Johnston (O. V. C., '89), Geneva; vouchers, W. L. Williams, H. D. Gill, and W. H. Salisbury.

Joseph W. Turner (O. V. C., '92), Lyons; vouchers, W. H. Salisbury and W. G. Dodds.

PAPERS AND DISCUSSIONS.

Dr. J. W. Corrigan, of Batavia, presented a short paper on "The Importance of Rectal Exploration and Manipulation," dealing with a number of practical points which present themselves during the course of every-day practice. Considerable discussion was created, especially in relation to the exhibition of enemas, and particularly cold enemata for systemic effects in febrile cases, some holding that they were of great benefit, others that their excessive indulgence were irritative and detrimental—among the latter Dr. Merillat, of Chicago, was decided in his objections. Drs. Berns, Kelly, and others gave their opinions and experiences. Dr. Corrigan's paper will be found elsewhere in this number.

"The Tuberculin Test as a City Health Ordinance" was the theme of Dr. C. H. Jewell, of Dunkirk, who gave his interesting experience in connection with it. It will find space in the November REVIEW.

"The Influence of Altitude on the Results of Surgical Operations," was read by Dr. R. C. Reed, in the absence of the author, Dr. J. A. McCrank, of Plattsburgh, and was one of the most interesting and instructive of the meeting, showing conclusively that surgical procedures which are attended by good success at

high altitudes are failures in the low countries. This conception of the facts will give to the surgeons about Gotham great comfort when they contemplate some of the results which they obtain. Dr. Lyford's radical operation for bursal enlargements, for instance, may be all right in Minneapolis, while along the Eastern seashore it would probably always be a fatal undertaking. This paper will also be published in the REVIEW a little later.

Dr. Wm. Henry Kelly, of Albany, did not prepare a paper, but gave an interesting talk on "bob veal," with some instructions as to how it may be detected.

Dr. C. J. Mulvey was unable to be present, but forwarded his paper, "Some Azoturia Experiences," to the Secretary, who read it before the society. The formation of lumbar abscesses, when not occasioned by bed sores, is, so far as we know, unknown as a complication or sequel to azoturia, and the opinion was generally expressed that the doctor was not in the presence of that disease at all.

"An Abnormal Oviduct in a Chick," was the theme of Prof. G. S. Hopkins, who exhibited drawings of the peculiarity, and was an appreciated contribution to the anatomical study of birds.

Dr. A. H. Ide, of Lowville, contributed a paper on the subject of "Spaying as a Remedy for Vice in Mares," being a recital of his experience with the operation, he narrating a number of instances of its performance. We gathered from his remarks that the cures slightly exceeded the failures; but in the discussion which followed he was robbed of two of his best cases. For instance, the mare belonging to Dr. Wilson Huff, operated at the 1900 meeting, and classed among the cured, brought the latter gentleman to his feet with the declaration that the cure had only lasted four months, when she became worse than ever. He had since tried "flogging," but this also failed. Dr. Williams being appealed to at this point as to the next thing to be tried, suggested "selling." All of which goes to show that the practitioner must not recommend the operation as a certain cure in all cases.

The subject of "Anthrax" formed a most interesting theme for discussion. It was opened by Dr. Claude D. Morris, who delivered a splendid didactic lecture on the disease, beginning with a discussion upon its definition from a lay and from a scientific standpoint, going deeply into its history and into the causes and preventive treatment, bringing the subject right

down to the present time and to outbreaks in our midst. Dr. V. A. Moore took up more fully the bacteriological aspect of the disease and dwelt upon the difficulty in making a diagnosis, even by aid of the microscope. He exhibited the spleen of a cow certainly dead of the disease which failed to show the almost constant lesion of splenic enlargement and softening. Drs. Kelly, Corrigan and others took part in the discussion, and it proved to be of great interest and value.

Prof. Simon H. Gage showed well executed charts illustrating the "Development of the Metacarpus and Metatarsus of the Sheep," accompanied by a descriptive paper elucidating the drawings.

Dr. Pierre A. Fish gave "A Reliable Test for the Determination of Phosphates in the Urine of the Horse," besides making a case report of the "Treatment of Goitre in Dogs."

Some interesting case reports were as follows: "A Peculiar Disease of Cattle," by Dr. W. H. Phyfe; "Parturient Apoplexy Cases," by Dr. C. J. Mulvey; "Severing of the Rib with Protrusion of the Omentum," by Dr. W. H. Salisbury; "Supplementary Digits in a Foal," with the amputated digit on exhibition, by Dr. J. L. Wilder; "Exhibition of Pathological Specimens, with Remarks," by Drs. V. A. Moore and S. H. Burnett.

A treat which should be added to the literary programme was the "Illustrated Lecture on Specific Etiology and Some of its Problems," given on the evening of the first day by Dr. V. A. Moore. The stereopticon was manipulated by Prof. Gage, the views thrown very clearly upon a sheet back of the rostrum, in splendid view of an audience numbering more than one hundred. The specific microörganisms were shown in full relief and the speaker's description of them and their life history was very instructive. As many of his audience were ladies, whose familiarity with the terms employed was somewhat meagre, Dr. Moore explained that these organisms were called by various names according to the country where found. For instance, in Germany, they are called "germs," in Paris, "parasites," while in Ireland they are spoken of as "microbes."

Following this intellectual treat the guests repaired to upper rooms, where a light but very luscious repast was served, which was enjoyed to the strains of sweet music, some of the guests with terpsichorean proclivities indulging in dancing, but none seeming to enjoy it with the zest of Drs. Ackerman and Hanson, who did some rather creditable "cake walking."

RESOLUTIONS ADOPTED.

On the Assassination of the President (who was then thought to be out of danger).

Resolved, That the New York State Veterinary Medical Society assembled in annual meeting at Ithaca, N. Y., expresses its sense of horror of the murderous assault made on Wm. McKinley, the honored President of the United States, its warm sympathy with the sufferer, and its profound gratitude that the object of the assassin has failed to be accomplished, and that there is every reason to hope for a speedy and complete recovery of the chief ruler of the Nation.

Army Veterinary Department.

WHEREAS, The United States Army is the only army in the civilized world which has not an organized veterinary service giving rank to the veterinarian; and,

WHEREAS, Notwithstanding the endeavors and labors of many years on the part of the veterinary profession throughout the country, to obtain suitable recognition and adequate graded rank in the United States Army; and

WHEREAS, The American Veterinary Medical Association in its recent meeting resolved to continue its endeavors and labor until we meet with success; therefore be it

Resolved, That we the New York State Veterinary Medical Society as a body and as individuals promise our hearty coöperation and assistance to the Committee on Army Legislation of the A. V. M. A. until we do obtain from Congress the establishment of an efficient veterinary service in the Army, and adequate graded rank for the veterinarian, recognizing his position as an educated professional man.

The Creation of State Veterinarian.

Resolved, That this association urge upon the Commissioner of the Department of Agriculture of this State the advisability of the appointment of a State Veterinarian who would be the chief of the Veterinary Bureau of the said Department; or, if this is impossible under the present laws, that this association would request his aid in the passage of a law which would create such a bureau with a Veterinary Chief. It is further

Resolved, That the Secretary be empowered to communicate with the Commissioner of the Department of Agriculture with this end in view.

ELECTION OF OFFICERS.

The following officers were elected for the ensuing two years:

President—James Law, of Tompkins.
Vice-President—James L. Robertson, of New York.
Secretary-Treasurer—Wm. Henry Kelly, of Albany.
Censors—Harry Sutterby, E. B. Ingalls, E. B. Ackerman, and H. D. Gill.

The selection of two names to be furnished to the Board of Regents to fill the vacancy caused by the resignation of Dr. John A. Bell from the Board of Veterinary Examiners, resulted in favor of Drs. E. B. Ackerman and H. D. Stebbins.

SELECTION OF PLACE OF NEXT MEETING.

The two candidates were Ithaca and Brooklyn, and in the voting the latter place was selected.

THE SURGICAL CLINICS.

These were held from 9 to 11 A. M. and from 4 to 6 P. M. on Tuesday; and from 8.30 to 11 A. M. on Wednesday.

The operations performed were as follows:

Sciatic and Anterior Tibial Neurectomy, Dr. C. H. Jewell, Dunkirk.
Trifacial Neurectomy, Dr. J. L. Wilder.
Caudal Myectomy, Dr. W. H. Salisbury, Clifton Springs.
Cunean Tenotomy (spavin operation), Dr. L. A. Merillat, Chicago, Ill.
Peroneal Tenotomy (stringhalt operation), Dr. L. A. Merillat, Chicago, Ill.
Operation for Cribbing, Dr. W. L. Williams, Ithaca.
Median Neurectomy, Dr. C. E. Clayton, New York City.
Median Neurectomy, Dr. A. H. Ide, Lowville.
Spaying Bitch (linea alba), Dr. A. H. Ide, Lowville.
Spaying Bitch (flank), Dr. C. H. Jewell, Dunkirk.
Spaying Cow (vaginal), Dr. C. H. Jewell, Dunkirk.
Spaying Mare (vaginal), Dr. J. W. Corrigan, Batavia.
Sciatic and Anterior Tibial Neurectomy, Dr. C. H. Jewell, Dunkirk.
Arytenoideraphy, Dr. L. A. Merillat, Chicago.
Aseptic Castration, R. C. Reed, Ithaca.
Intra-tracheal Injection, Dr. J. W. Corrigan, Batavia.
Intra-venous Injection, Dr. A. W. Baker.
Intubation of Œsophagus, Dr. A. H. Ide, Lowville.

NOTES N. Y. S. V. M. S. MEETING.

The REVIEW'S prediction that the State meeting would exceed in importance and attendance all former meetings was more than fulfilled.

Dr. Wm. Herbert Lowe came over from Paterson, N. J., and was an attentive guest, expressing himself as well repaid for his trip. Oh, that we had more Lowes.

Dr. Huidekoper was early on the grounds in search of Morris' scalp, incidentally doing some missionary work in behalf of army legislation.

The magnificent scenery around Ithaca was a joy and an inspiration, and the atmospheric conditions were very beneficial to those from near the seashore.

Twelve new members is a goodly number for any association meeting; but when the acquisitions are of the character that were elected at Ithaca it is doubly gratifying. New York City and Brooklyn contributed four of its best men—James L. Robertson, Elishu Hanshew, Charles E. Clayton and Robert W. McCully, all men of ripe experience and earnest in their love and devotion to their calling.

Brooklyn has set for herself a high undertaking in agreeing to succeed Ithaca as a place of meeting, since the peculiar facilities of the latter city rendered it an ideal spot for holding a modern meeting, with its clinical features. But Brooklyn's enthusiastic veterinarians, in conjunction with the society's splendid representatives in Gotham, will make sure that next year's event will be lacking in very little to make up a meeting in keeping with those of the past two years.

When the meeting had adjourned Dr. Claude D. Morris made a statement regarding the letter which he wrote to Secretary Root anent the army veterinary bill. It was a personal explanation, and had nothing to do with the official action of the society. He claimed to have written to the Secretary through a request from a senator, asking him to state the position of the society.

Hotel accommodations in Ithaca were rather poor. There was only one hotel, the rival hostelry having been burned recently. Consequently beds were scarce, and many of the members had to put up with "shake-downs." At one o'clock in the morning we found our good friend Brenton, of Detroit, sitting in the office in perfect resignment to pass the night in a chair. A young man came into the house to get one of the clerks to pass the night with him, and the latter very kindly substituted the bedless veterinarian.

For the first time in the history of the society the ladies became a factor in the annual gatherings. There were ten visitors who, with those living in Ithaca, made a score and a half in at-

tendance. Three were from the West—Mesdames Stewart, Merillat and Hughes; four from New York and Brooklyn—Mesdames Berns, Hanson and Bell, and Miss Berns; and from the State Mrs. Kelly, Mrs. Phyfe, and Miss Huff. Entertaining these visitors were Mrs. Law, Mrs. Williams, Mrs. Gage, Mrs. Moore, Mrs. Fish, and the Misses Law. The best of it is that they all had a most delightful time—boating, trolleying, sight-seeing, and other pleasant diversions. This feature of the meetings is bound to increase.

ILLINOIS VETERINARY MEDICAL AND SURGICAL ASSOCIATION.

Semi-annual session held at the St. Nicholas Hotel in Decatur, Illinois, August 8 and 9, 1901.

The meeting was called to order by the President of the association, Dr. V. G. Hunt, of Arcola, Illinois, the roll-call showing a goodly number of the members in attendance, when the opening address of President Hunt was delivered in a masterly manner and was replete with interest to the association.

An application was presented to the association for membership by Dr. W. J. Martin, of Kankakee, which was favorably acted upon by the committee on membership; Dr. Martin was introduced to the members of the association.

Upon proper motion to that effect, the President instructed the Secretary to draft resolutions of condolence on the death of Dr. P. M. Holburg, of Atlanta, Illinois, a member of the association, and that a copy thereof be sent to the widow of the deceased, and also one be spread upon the minutes of this meeting, which resolutions are as follows:

WHEREAS, by the death of Dr. P. M. Holburg, the association has been deprived of one of its brightest and most faithful members, therefore be it

Resolved, That in the late Dr. P. M. Holburg, we recognize a man of learning and character, and an able practitioner of his profession; that we shall remember him as a man of noble impulses, of genuine and kindly sympathy with his fellowmen; of a warm heart and an honest mind.

Resolved, That we tender our sympathy and condolence to the bereaved wife and family of the deceased in their hour of affliction.

Resolved further, That a copy of these resolutions be sent to

the family of the deceased, and a copy be spread upon the minutes of this meeting.

The Secretary was also instructed to prepare resolutions of sympathy and forward the same to Dr. N. P. Whitmore, of Gardner, on the death of his baby girl, who died July 30th, 1901.

The Committee on Membership reported on the application of Dr. A. D. Balsley for membership in the association, and reported the applicant for lack of evidence not sufficiently qualified to become a member, and recommended that the application be deferred until the next meeting.

A very excellent paper was read by Dr. W. J. Martin, of Kankakee, on the subject of "Fistula," who brought out some very interesting as well as instructive points with reference to this disease; he was responded to by Drs. V. G. Hunt and S. H. Swain.

Under "reports of cases," many interesting subjects were introduced and discussed in an able and intelligent manner by Drs. W. J. Martin and S. H. Swain.

An able and instructive paper by Dr. S. D. Brown on "Laminitis" was well received, and was responded to by Drs. S. H. Swain and John Osborne.

August 9th.—The second day's session of the association was called to order by President Hunt.

Much discussion was indulged in over an able article which was read by Dr. S. H. Swain on the subject of "Osteoporosis"; much that was both interesting and instructive was said upon the subject.

The association was honored with the presence of Dr. W. L. Williams, of Cornell University, who contributed some valuable points on the subject of "Osteoporosis."

The subject of "Anthrax" was well calculated to bring forth very interesting discussions, and a paper on the subject by President Hunt was well prepared and very favorably received; responded to by Drs. W. J. Martin and John Osborne.

On motion the date and location of the next meeting was fixed for January 9th and 10th, 1902, at Decatur, Illinois.

W. A. SWAIN, *Secretary.*

NEWS AND ITEMS.

DR. CARL W. GAY, graduate of New York State Veterinary College, has accepted a position on the faculty of the Iowa State College, at Ames, his duties at the beginning being chiefly

to assist Dr. Repp, who has for some time been overworked.

DR. NELSON S. MAYO, late professor of anatomy, physiology and veterinary science at the Connecticut Agricultural College, has been elected professor of veterinary science in the Kansas State Agricultural College, at Manhattan, which was the scene of his labors before going to Storrs.

DR. A. W. BITTING, State veterinarian of Indiana, was formerly a student of Prof. Beery, the famous horse-handler (whose book on the subject is advertised elsewhere in the REVIEW), and says that Beery is simply a phenomenon in his profession, and a thoroughly honorable man.

MR. ARTHUR M. LEEK, of Highwood, Conn., a second year student of the N. Y.-A. V. C., reports that a horse-trainer recently had the following mixture rubbed all over a horse: Aconite, ℥iv, mixed with several ounces each of witch hazel and alcohol, which resulted in a severe case of aconite poisoning.

THE ONTARIO VETERINARY COLLEGE, LIMITED, TORONTO, CANADA.—The annual announcement of this well-known institution has just been handed out. The session will commence this year October 16, and it is understood that from the number of applications received for entrance there are excellent prospects for a successful session.

DR. W. L. WILLIAMS, of Ithaca, N. Y., who was absent from the Atlantic City meeting through attendance upon the fiftieth anniversary of his aged parents' wedding, at Argenta, Ill., was saddened in less than a fortnight after his return to the East by the intelligence that his father was so ill that his death was but a matter of a few days.

IT is stated that Senator W. A. Clark has bought the Bitter Root farm from the estate of the late Marcus Daly. Included in the sale are 125,000 acres, of which about 25,000 may be said to be improved. Mr. Clark has announced his intention of erecting a refinery and growing sugar beet on the suitable lands in the tract.

MANY of the readers of the REVIEW, and more especially those of the Ontario Veterinary College, of the class of 1900, will be pleased to learn of the appointment of Dr. Frank Erwin and Dr. John Macdonald Smith as veterinarians in the U. S. Army. They both sailed on Sept. 16th, on the U. S. transport *Warren* from San Francisco for Manila, where they will enter upon their new duties.

AGAINST ILLINOIS ANTHRAX.—The Illinois Board of Live

Stock Commissioners at its meeting on Sept. 3 discussed the advisability of quarantining the county of Lake and part of Cook against anthrax. In the end it was decided not to order a formal quarantine, but to use the strongest efforts to stamp out the disease, which is alleged to have caused the death of over 100 head of stock and one man. Another man is said to be very ill with this disease, and in both cases the infection took place during the skinning of dead cattle.

McKILLIP OPENING.—The opening of the classes on Oct. 2 finds the collegiate staff of the McKillip Veterinary College replete in all its branches. Additions to the faculty have been made and any vacancies filled by gentlemen of national reputation, both as teachers and practitioners. The following names are too well known to require any comment or further introduction: F. S. Schoenleber, M. D., M. S. A., D. V. S. (Dean), anatomy; W. S. Harpole, M. D., pathology; T. B. Newby, V. S., materia medica and therapeutics; J. J. Millar, V. S. (Secretary), bovine medicine, obstetrics and contagious diseases.

A TROUBLOUS YEAR FOR HORSES.—This seems to have been rather an unlucky year for horses in the United States. First of all, in the spring came news of outbreaks of glanders in the western part of the corn-belt, but those seemed to pass without material damage. Kentucky and Tennessee in part complained in early summer of diseases that carried off quite a number of horses, and then came the great scourge of influenza in New York. The authorities are not agreed as to the number of horses that died in Gotham this summer, but it is well known that the percentage was larger than during the visitation of any other epizoötic disease. From New York this low form of influenza moved to Chicago and, though not so fatal there in its effects, carried off a great number of horses, especially of those not thoroughly inured to life in the city and work on the stones. Next came the news that "maladie du coit" was so prevalent in parts of Nebrasda that both State and Nation had to take a hand in the effort to suppress it, and finally this last week comes the report that glanders has been introduced by range horses into Southern Wisconsin to an extent that necessitates the prompt action of the State authorities. In the last named instance State Veterinarian E. D. Roberts has caused a most vigorous quarantine to be instituted and a number of diseased horses have been shot by his order. The prolonged drouth, according to some authorities, is the basic cause of all this trouble. —(*Breeder's Gazette, Sept. 21.*)

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